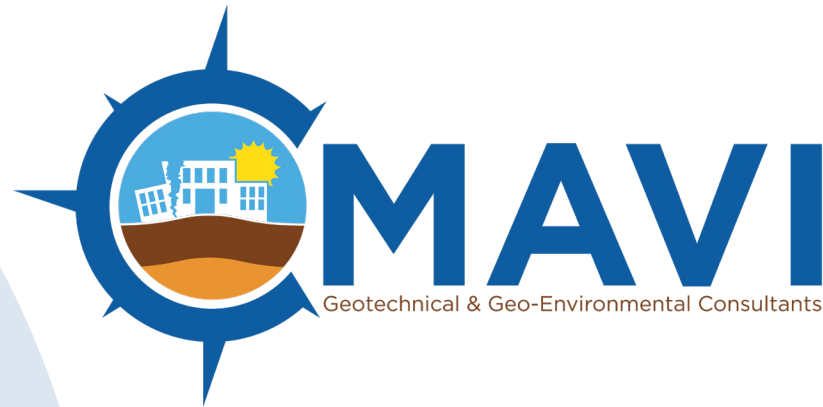




Geotechnical | Environmental | Material-Testing



ABOUT US

OMAVI Geotechnical & Geo-environmental Consultants CC (OMAVI) is a wholly Namibian owned consulting/ contracting firm specialising in the fields of geotechnical engineering and environmental management services. OMAVI was established with the aim of providing clients with value adding, cost effective and impactful solutions; tailored to meet the client's specific geotechnical and environmental management needs through close co-ordination with all stakeholders involved in every stage of a project. The company offers site/ project - specific geotechnical investigation services including in-situ testing, comprehensive interpretative reports and geotechnical design recommendations to structural engineers, architects, costing engineers, urban and regional planners, civil contractors, property developers, mine operators, and project managers. Collectively, our interpretative geotechnical site investigation reports serve as practical guiding documents for:

- ▶ Site selection
- ▶ Planning and layout of structures
- ▶ Selection of foundation types/ construction methods
- ▶ Foundation and slope design parameters
- ▶ Earthworks tender documentation input
- ▶ Construction site supervision
- ▶ Adjudication of claims
- ▶ Construction Material Testing

The environmental management division on the other hand provides services such as:

- ▶ Environment Scoping Assessments (ESA) and Report Compilation
- ▶ Environment Impact Assessments (EIA) and Report Compilation
- ▶ Compilation of practical project-specific Environmental Management Plans (EMPs)
- ▶ Environmental Monitoring and bi-annual reporting
- ▶ Application and Renewal of Environmental Clearance Certificates (ECC)
- ▶ Soil Contamination Assessments
- ▶ Permitting (Environmental; Mineral Exploration & Mining Licenses; Water Abstraction; Diamond License; Hazardous substance transportation & storage)
- ▶ Waste Disposal and Management Planning

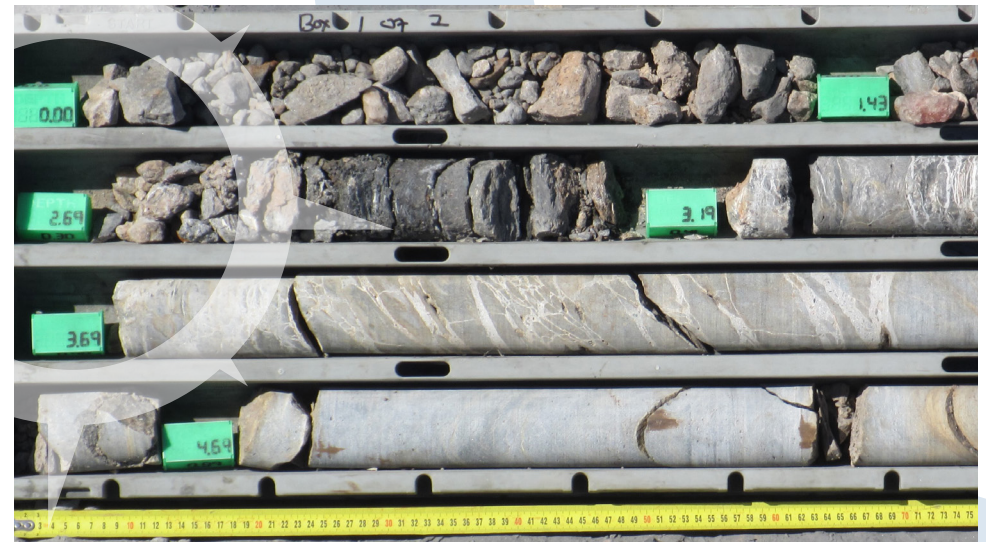
To ensure that we serve our clients with reliable and high-quality solutions that speak to their geotechnical and environmental management requirements, OMAVI utilises industry tested software such as ArcGIS, QGIS, Geostudio, dotplot, Roscience, Roclab, and various excelbased programs to process, analyses, summarise and present data/ information in a logical and efficient manner. Furthermore, OMAVI collaborates with specialists to undertake specialised work requiring expertise outside the knowledge base of our internal structure.

CORE SERVICES OFFERED

GEOTECHNICAL SITE INVESTIGATIONS FOR CIVIL & MINING STRUCTURES

Geotechnical Engineering Consulting Services:

- Planning, execution, and coordination of geotechnical site investigation programs for:
 - Rural/ urban planning purposes Borrow pit investigation & sampling for construction materials Geotechnical core logging
 - Design and Construction monitoring of building foundations (residential & industrial),
 - Design and Construction monitoring of foundations for powerlines, sub-stations and power stations,
 - Design and Construction monitoring of foundations for mine waste residue (tailings dams, heap leach pads and mine waste dumps)
 - Routing and foundation design of pipelines,
 - Design and Construction monitoring of foundations for network/ transmission towers,
 - Design, construction monitoring and operational management of municipal and private waste dump and landfill sites,
 - Stability evaluation of rock cuts and slopes,
 - Rock Mechanics
- Derivation of geotechnical design parameters for all civil and mining structures based on both working stress design and limit state design principles
- Quality assurance/ control and validation of geotechnical data for design purposes
- Bearing capacity and settlement analyses of foundations



- Investigations for construction material (e.g. identification and approval of soil, aggregates, ballast for use in earthworks and civil construction works)
- Geotechnical input into earthworks tender specifications/ documentation
- Supervision and management of geotechnical drilling and sampling projects
- Geotechnical mapping, logging, and soil profiling
- GIS-based studies for historical and present land-use analysis, desktop layout/ routing planning
- Installation and commissioning of Geotechnical surveillance instrumentation plus postinstallation monitoring and data interpretation
- VIBRATING WIRE PIEZOMETERS – to measure and monitor ground water levels & pore water pressures
- Research & Development (on various practical aspects of geotechnical engineering & environmental management)



ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Management Consulting Services offered include:

- Environment Scoping Assessments (ESA) and Report Compilation
- Environment Impact Assessments (EIA) and Report Compilation
- Compilation of feasible Environmental Management Plans (EMP)
- Application and Renewal of Environmental Clearance Certificates (ECC)
- Waste Disposal and Management Planning
- Soil Contamination Assessments
- Site Selection and Alternative Assessment
- Environmental Monitoring
- Coordination & undertaking of public consultation meetings for Environmental Assessment Studies



LABORATORY TESTING SERVICES

● Soil Testing

- ▶ Moisture Content
- ▶ Grain Size Analysis
- ▶ Atterberg Limits
- ▶ Soil Classification (in accordance with USGS, COLTO, TMH14)
- ▶ Maximum Dry Density & Optimum Moisture Content (Mod AASHTO & Proctor)
- ▶ California Bearing Ratio (CBR)
- ▶ Unconfined Compression Strength of soilcrete
- ▶ pH & Electrical Conductivity to evaluate risk of attack on concrete re-enforcement
- ▶ Nuclear Density Testing (Troxler)
- ▶ In situ Testing – DCP

● Aggregate Testing

- ▶ Sieve Analysis
- ▶ Bulk Density
- ▶ Aggregate Crushing Value and 10% Fact
- ▶ Quality control testing for paving and crusher production plants

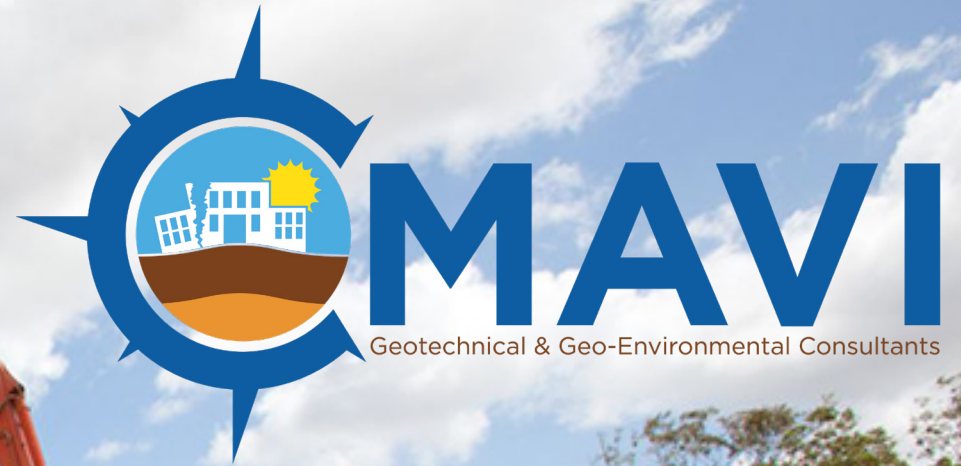
● Concrete Testing

- ▶ Concrete mix designs
- ▶ Slump Test
- ▶ Compressive Strength of Mansory units (concrete cubes, bricks, pavers)



OUR VALUE PROPOSITION

- It is a matter of fact that as a developer, contractor, design or construction engineer, project manager or town planner, if you do not know what lies in the ground underneath your site for a planned development, you will not be able to: (1) optimise the site layout, (2) optimize the design of foundations and drainage systems for the planned structures, slopes, retaining wall and/ or access roads, (3) capitalize on utilizing on site material for layer and/ or concrete works, and (4) schedule and cost your earthworks scope accurately enough.
- We help to detect unfavourable ground conditions, and in so doing we help to de-risk project schedules and budgets from unforeseeable ground conditions
- We help clients to comply with best practice environmental management, environmental monitoring, land rehabilitation and social impact management practices
- We help mine operators to continuously move towards compliance with the Global Standards on Tailings Management
- We help clients to comply with permitting and licensing requirements for water abstraction, waste disposal and management, mineral prospecting and mining



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