

# COMPANY PROFILE

#### **A MINERAL EXPLORATION CONSULTANCY COMPANY**



www.archean-consulting.com



## ARCHEAN CONSULTING GROUP IS DIVIDED INTO THREE MAJOR SERVICE AREAS: EXPLORATION, RESOURCES AND RESERVES, AND GEOSCIENCE.

## **OUR COMPANY**

## YOUR RELIABLE PARTNER

ARCHEAN is a mineral exploration consulting firm that provides the global mineral exploration industry with high-quality, professional, and innovative geological services. We provide international mining and exploration clients with high-quality, cost-effective contract exploration, target generation, and exploration management services in a wide range of geological settings and deposit types. Exploration, Resources & Reserves, and Geoscience are the three main service areas of our consulting firm.



## OUR BELIEFS WHICH ARE PAVING OUR WAY

Growing as a team No wasting time Together, we're smarter No shortcuts First In Access All Areas Make tomorrow possible Safe workplace

## WHAT WE DO.

## 1 - MINERAL EXPLORATION MANAGEMENT SERVICES



#### Field Structural Analysis

Our structural geologists have the hands-on field experience needed to solve your mineral exploration problems.



## Sampling Program

It all starts with good geological mapping and it is where opportunities are recognized in the field.



## **Geological Mapping & Field Investigation**

Good geological mapping is where it all starts and where opportunities are recognized in the field.



### **Target Generation**

We can prepare simple target ranking schemes that allow systematic exploration, linked back with sensible budgets and project planning.

### **GIS Services**

We offer a complete data service to our clients, from legacy data assessments, data capture, appropriate quality assured/quality controlled (QA/QC) data verification, to integration into a coherent and validated spatial database.





#### Remote Sensing & Geophysical Surveying

Interpretation of aeromagnetic and satellite imagery data to produce structural and geological maps that help target deposits Ranking of exploration targets for specific deposit styles

## Petrographic Services

- Lithological, alteration, and ore mineral identification
- Paragenetic and textural relationships
- Transmitted and reflected light petrography

## **Exploration Management**

- Exploration planning, implementation, and project management
- Acquisition and management of permits and licenses
- Data capture, management, and reporting Core logging, mapping, and sampling
- Desk studies and technical report writing
- Exploration drilling management
- Creation and implementation of drilling management programs



### Mineral Exploration Project Auditing & Valuation

Our expert technical staff produce reports for public distribution and internal circulation based on internationally developed guidelines addressing issues such as transparency, materiality, and competence.

## **Mineral Exploration Geochemistry**

## Services include:

- Data analysis and target generation from geochemical results
- Sampling program implementation and supervision
- Exploration geometallurgy



 Orientation studies to determine suitable sampling media and analytical methods





#### Drilling Management, Drill Program Planning, and Supervision

At ARCHEAN, running drilling programs of any kind is what we do best. We've managed everything from remote scout drilling projects to multi-rig resource delineation programs. We've managed to drill for small explorers as well as for the big miners.

## **Training And Courses**

ARCHEAN provides training and professional development to the mining and exploration industry. The following courses are available. These are all customisable to the client's requirements and audience.

#### **Tenement Management**

ARCHEAN can help with new tenement applications. We make the application process as simple as possible. We also provide a tenement monitoring service to keep you informed about any activities taking place around your current licenses, or anywhere else if you have a specific target in mind.

## 2 - RESOURCE & RESERVE

## **3D Geological Modelling**

## Services include:

- 3D historical exploration and mining data set compilation
- 2D and 3D GIS data set integration
- Terrane-scale modelling and 3D exploration targeting



## **Reconciliation Studies**

Reconciliation of resource model with mine production, and mine production with mineral processing information provides key information on the quality of the entire system.

- Resource modelling, using defined geological criteria and grade data
- Geotechnical and hydrogeological domain definition and country rock domain model



## **Resource Estimation**

## We can deliver:

- Independent review and auditing of mineral exploration projects
- Review of sampling, assay procedures and chain of custody
- Independent monitoring of QA/QC results
- Geological/ore deposit modelling
- Independent competent person reports (JORC, NI 43-101, PERC codes)
- Recommendations for future drill and mining programmes
- Design and construction of high-quality reports and presentations

Mining & Petroleum Consulting



## **Property Appraisals**

ARCHEAN can assist with valuing your mineral projects and establish values that can be used in negotiations.

## QA/QC Reviews

ARCHEAN can help by implementing industry best practice standard operating procedures and putting them into place through training on your work site.





## **Technical Due Diligence**

Is your company looking to invest in a mining or exploration project? Let RSC carry out important technical due diligence to flush out any fatal flaws or other technical issues with the project.

#### **Market Announcements**

ARCHEAN can assist with preparing your market announcements, taking care to emphasise the sell points, whilst maintaining transparency and supporting the announcements with professional imagery.





## Feasibility Study and Advisory

Our feasibility studies and advisory services cover the full value cycle of assets, from concept or project scoping, to bankable studies used to support finance applications, to master planning, to de-bottlenecking, compliance and due diligence reviews.

- Preliminary economic analysis
- Scoping and conceptual studies
- Preliminary feasibility or pre-feasibility studies
- Definitive and bankable feasibility studies
- National Instrument (NI 43-101) & JORC reports

- Engineering cost studies and project scoping reports
- Conceptual engineering and preliminary design
- Facility master planning and design
- Due diligence studies and hazardous area compliance

## **3 - MINE DEVELOPMENT & ENGINEERING**

## **Mining Geology**

#### Services include:

- Grade Control Drilling.
- Production Sampling.
- Production Mapping.
- Productivity improvement.

- QAQC.
- Reconciliation Analysis.
- Grade Control Modelling.
- Mine Life extension program.

## **Mining Project Auditing & Evaluation**

#### Services include:

- Mining Studies
- Assurance

- Economics & Finance
- Risk assessment

Mining & Petroleum Consulting

### Open Pit Mine Design, Planning, and Engineering

## Services include:

- Engineering studies at all stages.
- Strategic planning of economic cut-off
- grades and production rate analysis.
- Mining strategy development, implementation, and optimization.
- Operating cost, labour productivity, and manpower requirement estimation.
- Capital expenditure estimation.
- Open pit to underground transition analysis.
- Competent person, independent expert, and stock market listing reports.





## Underground Mine Design, Planning, and Engineering

## Services include:

- Engineering studies at all stages.
- Strategic planning of economic cut-off grades and production rate analysis.
- Geotechnical characterization and ground support system design.
- Life-of-mine plan optimization.
- Drill and blast design and fragmentation analysis.
- Ventilation system modelling and design.
- Equipment and manpower requirement estimation.
- Operating and capital cost benchmarking and first principals cost modeling.

## 4 - DRILLING

Our superiority in the field of drilling stems from our distinguished strategic partnership with one of the largest drilling companies in the Middle East, AGC provides drilling services at the highest level of professionalism.



- Reverse Circulation
- Blast Hole Drilling
- Water Borehole Drilling
- Diamond core
- Underground Drilling
- Geotechnical Drilling
- Directional Drilling
- Grade control

## 5 - DATA

## Services include:

- Data Management Process setup
- Data Governance
- Data collection
- Data management
- Database auditing
- Database QAQC



## 6 - LABORATORY

ARCHEAN carries out full laboratory reviews, focusing on provide the following services:

- Design and operate a sample preparation unit.
- Design and operate a technical lab (Chemical or Metallurgical).
- Assay process.
- Sampling and preparation issues solving.
- Quality Control.
- Quality Assurance.
- Analytical Chemistry.
- Verification Services.
- Certifications.



## 7 - METALLURGY & MINERAL PROCESSING

Our metallurgical team is experienced in most aspects of processing base and precious metals, industrial and energy minerals, and rare earth elements..

- Geometallurgical Modelling.
- Processing Plant Flowsheet Design.
- Plant Design.
- Processing Modelling.
- Equipment selection.
- Operation cost analysis.
- Cost benefits study.
- Ore samples selection.
- Test work program design.
- TSF and Leach Pad Site selection.



## 8 - MINING GEOTECHNICS

## **Mining Studies & Mine Planning**

Our highly experienced mining study and mine planning team add value from resource discovery to final product, and at every step in between. We help you to realise maximum value for projects ranging from exploration to closure.



## **Geotechnical Studies**

### Services include:

- Geotechnical Scoping, Pre-Feasibility and Feasibility Studies.
- Audits (regulatory, risk, and compliance).
- 2D & 3D finite element numerical modelling.
- On-site geotechnical engineering coverage.
- Geotechnical and geological core logging.
- Training and development of client staff.
- Ground Control Management Plans.

## CERTIFICATIONS

At ARCHEAN, we have a pool of experienced geologists with professional accreditation, having earned P. Geo and EurGeol designation, with speciality expertise in specific countries and exploration models.

Our P.Geos have experience in the principal international mining, resource and exploration codes, including JORC, CIM, Valmin, SAMREC, PERC and NI 43-101, as well as reporting, listing and compliance experience on TSX and AIM.

ARCHEAN is keen to follow the international standard procedure, so ARCHEAN management team is keen to develop the company and get the high standard certificates in the mining industry



## WE ARE LOOKING FORWARD TO HEARING FROM YOU



## CONTACT DETAILS

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