

# ELECTRICAL ENGINEER



We need Electrical Engineers to design and support the construction and maintenance of a mine's electrical and information systems. They use science, technology and critical thinking to troubleshoot and solve problems.

## JOB DESCRIPTION

- Conceive and plan the electrical equipment and systems to operate in demanding conditions at the mine site
- Research, specify, recommend, install and commission the electrical equipment and systems
- Provide trouble-shooting support to improve operational efficiencies
- Provide technical leadership for maintenance departments through the use of computerized planning, modeling and predictive maintenance systems
- Lead the implementation of cutting-edge processes and safety practices
- Prepare tendering competitions, evaluate technical aspects of bids, supervise contractors, negotiate variations and remedial works, assure quality, measure work done, approve and accept works
- Lead or work on a team to ensure projects are completed on time and budget, and to high quality standards
- Write reports, attend meetings, exchange information with other professionals, record and store information in compliance with legislation, regulations and company policies
- Ensure safety, improve operational efficiency and quality, control production costs and protection of the environment at all stages of a mine life cycle
- Work cooperatively with other departments, project managers, supply chain and mine management to optimize production, reduce costs, solve problems and meet deadlines
- Supervise Junior Engineers and Technicians and assist Supervisors in building an efficient work force
- Only licensed engineers review and certify that electrical work has been built following established standards and regulations

## SUCCESS PROFILE

- Builds trust and maintains positive relationships with a wide variety of personnel
- Works under pressure in a fast-paced, dynamic environment
- Embraces new techniques and technologies
- Enjoys working with math, science, computers and all things electrical
- Understands and respects established safety procedures, legislation and regulations
- Intelligent, creative and goal-oriented
- Patient, flexible, adaptable and resilient, with strong communication and time management skills

## JOB ENTRY REQUIREMENTS

**Note:** The requirements listed below illustrate what it takes to start the career and do not take into account on-the-job training given to new employees.

### Fixed Requirements

- Bachelor's degree in Electrical Engineering
- Eligible for Registration as Engineer in Training
- Proficiency with word processing, spreadsheet, email software and language of operation
- Specialized software skills
- Willing to work in a diverse workplace
- Must pass a medical and drug test

### Regional Requirement

- Three or more years of mining experience

### May be Required

- Professional registration P.Eng
- High power distribution training (or training on electronic computer control process)

### Assets

- Master's degree in Electrical Engineering, or related field
- Willingness to relocate
- Other languages

## COMPENSATION

\$79,500

\$111,800

(Source: Canadian Mine Salaries, Wages & Benefits: 2018 Survey Results, InfoMine USA, 2018).

## JOB PROSPECTS

### Demand in Mining



### Skill Transferability Among Other Industries



## WHY ARE PEOPLE ATTRACTED TO THIS CAREER?

Electrical Engineers seek challenging and rewarding technical work. They like to work independently and with a team, and with new technologies.

## WHAT IS IT LIKE TO WORK AS AN ELECTRICAL ENGINEER IN MINING?

**Note:** conditions vary according to employer and region.

Electrical Engineers are usually based in an office in the engineering department on the mine site. They may be exposed to challenging working conditions, be required to work in confined spaces, at heights and near open holes, and are willing and able to climb ladders and steel ramps on the surface or underground. Experienced Electrical Engineers spend less time in the field and more in an office environment.