

# ELECTRICAL ENGINEER

**WHY BE AN ELECTRICAL ENGINEER?** IT'S A PROFESSION THAT USES SCIENCE, TECHNOLOGY, AND PROBLEM-SOLVING SKILLS TO DESIGN, CONSTRUCT, AND MAINTAIN PRODUCTS, SERVICES, AND INFORMATION SYSTEMS.

In mining, you'll be responsible for planning and supervising a site's power generating equipment and work with a team of other engineers on large construction projects. Using cutting edge technology and processes, you'll provide technical leadership and troubleshooting support to improve operational efficiencies.

## JOB DESCRIPTION

AS THEY PROGRESS THROUGH THEIR CAREERS, **ELECTRICAL ENGINEERS:**

- **Plan and supervise** power generating equipment
- Are responsible for **large construction projects**
- Are responsible for the **design and drawing of complex power and control systems**
- Provide **technical leadership for maintenance departments** through the use of computerized planning, modeling, and predictive maintenance systems
- Provide technical leadership with the implementation of **cutting edge processes and safety practices**

## COMPENSATION

2007 NEW GRADUATE ENGINEER PLANT  
(UNDERGRADUATE DEGREE)  
Average Annual Salary: **\$57,000**

SENIOR ELECTRICAL ENGINEER  
Average Annual Salary: **\$86,000**

## WHY ARE PEOPLE ATTRACTED TO THIS CAREER?

- The opportunity to **work anywhere in Canada (or the world)**. (Relocation allowances are generally provided.)
- Opportunity to have virtually any job from **pure research to upper management**
- Independent thought and work
- **Financial rewards** for high achievers
- Opportunities for training and **career advancement and continuous learning**
- Opportunities to work with **new technologies**
- **High demand** for the best and the brightest

## LIFESTYLE EXPECTATIONS

[WITH SOME POSITIONS IN SOME COMPANIES]

- **READY TO WORK SHIFTS**
- **IF MINE IS IN REMOTE LOCATION:**
  - i) Time away from family for extended periods
  - ii) Live with work colleagues on a 24/7 basis for 2-3 weeks at a time, with 2-3 weeks off between work schedules
- **MINE MAY BE IN A RURAL COMMUNITY, WITH AN OPPORTUNITY TO ENJOY THE OUTDOORS, HUNTING, FISHING, HIKING AND SO FORTH**

# PERSONAL ATTRIBUTES

SOMEONE GOING INTO THIS LINE OF WORK SHOULD:

- i) Be intelligent, creative, and goal oriented
- ii) Be a team player and communicate well with others
- iii) Enjoy working with math, science, computers, and all things mechanical
- iv) Have a high level of respect for established safety procedures and regulations
- v) Accept challenges with patience, flexibility, adaptability, and fortitude
- vi) Embrace new techniques and technologies
- vii) Have an ability to work under pressure
- viii) Have good time management skills

## CAREER PROGRESSION OPTIONS: ELECTRICAL ENGINEER

# 1

### EDUCATION AND TRAINING

- Minimum of a Bachelor degree in electrical engineering is required. Many mining companies suggest or require option of high power distribution training (or on electronic computer control process)
- Post-graduate degree would be desirable
- Professional engineering designation
- Specialized software skills
- For progression to senior management positions, an advanced degree is recommended

