



Instruments and Services for Earth Science



**Phoenix Geophysics** is a geophysical manufacturing and contracting company founded in 1975.

We are the world leader in magnetotelluric (MT) and induced polarization (IP) instrumentation. Phoenix systems are used in more than 80 countries for exploration and research.

Our clients are mining and oil companies, geophysical contractors, universities, research institutes, and government earth science agencies.

**"We deliver..."**

**cost-effective, reliable instruments and services that produce superior results."**

## Our Dedicated Workforce

- Innovative engineers and geophysicists put theory into practice, designing new products that meet clients' needs.
- Skilled technicians build, certify, and field-test our equipment to ensure reliability.
- Resourceful crews conduct field surveys in all terrains and climates, from ice-covered barrens in northern Canada to tropical jungles in South America.
- All our sales people are engineers or geophysicists.
- The entire Phoenix team is devoted to technical excellence and customer satisfaction.

### The global sales team:

Vice-Presidents James Kok, Olex Ingerov and Mitsuru Yamashita ,  
President Leo Fox, Carlos Guerrero and Lu Yi



**PHOENIX GEOPHYSICS**



## Geoscience Pioneers

Our engineers and geophysicists pioneered advances in controlled-source electromagnetic techniques, the induced polarization method, and natural-field electromagnetic measurements.

## Research and Development

Our scientists are leaders in applying electrical methods to exploration. Constant innovation of Phoenix equipment and techniques keeps us a world leader in the geophysical industry.

Phoenix's expert engineers rapidly translate ideas and concepts into the next generation of equipment.

**Phoenix** is the world's largest manufacturer of electrical methods earth science equipment.



## Health, Safety and Environment (HSE)

Phoenix techniques and instruments are non-invasive and do not harm the environment. The safety of operators is a high priority; our controlled-source equipment incorporates complete voltage and current protection.

## Service and Training

We provide complete service and support for every instrument and sensor we manufacture.

On-site, in-field, and international training, as well as ongoing support, are offered to all our clients.

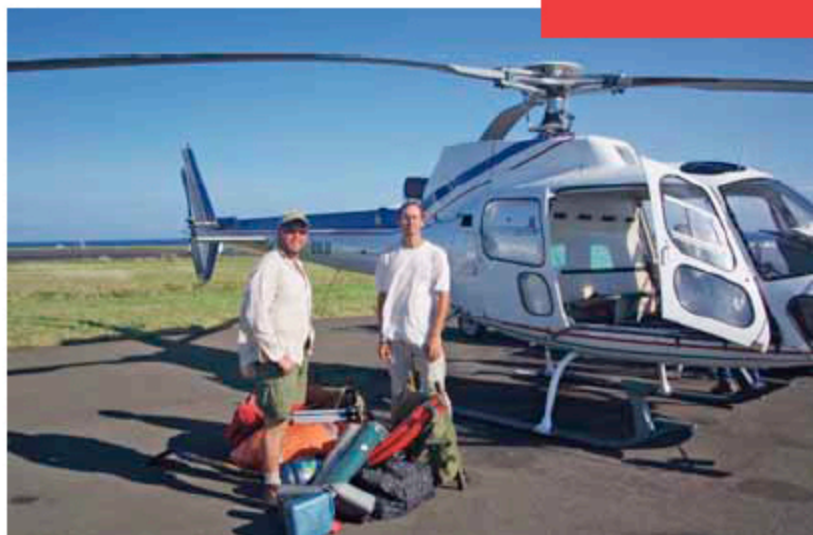
Engineer Jack Dodds heads a talented team of engineers, geophysicists, technicians and information technology specialists.







For all terrains and climates –  
rugged, light-weight, reliable  
**PHOENIX INSTRUMENTS**





# Phoenix Geophysics

## 1 Design and Manufacturing

All Phoenix equipment is designed, engineered and built in house so we can apply exacting standards at all stages of production. We customize, modify, and create new products to meet all our clients' needs.

We are the world's largest manufacturer of MT (magnetotelluric), AMT (audiofrequency MT), CSAMT (controlled source AMT) and IP (induced polarization) equipment.

## 2 Field Surveys

Our surveys are efficient, accurate and within budget. We plan every detail before Phoenix crews leave Toronto.

Feedback from the field is used for constant improvement of our products and services.

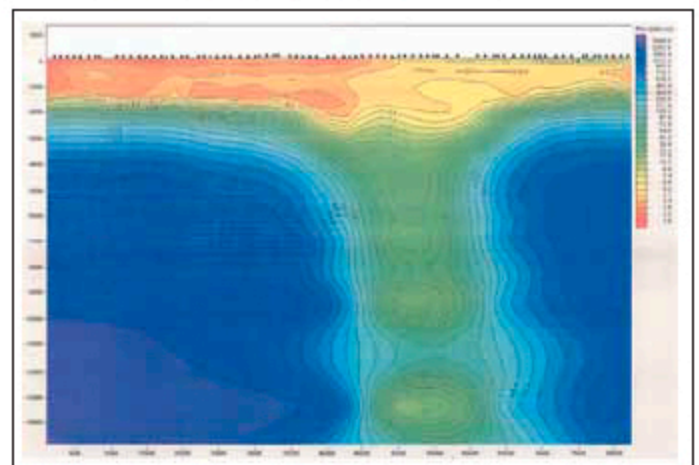
## 3 Data Interpretation

Phoenix geophysicists provide expert analysis of field survey data to create accurate images of the earth's subsurface.

## 4 Scientific Cooperation

Phoenix scientists work closely with their counterparts in Canada, China, Russia, Japan, Brazil, and other countries around the world, to further the understanding of electrical methods.

We frequently present our own and co-authored scientific papers at geophysical conferences.





## Equipment Applications

### Oil and Gas Exploration

- Frontier exploration
- Structural and stratigraphic mapping
- Correction of seismic static shift
- Environmentally-benign alternative to seismic
- Detection of direct hydrocarbon indicators in and above discovered seismic structures
- Basin and prospect reconnaissance
- Improved seismic velocity models
- Less costly than seismic
- See through high-velocity layers

### Base and Precious Metals Exploration

- Detection of targets as deep as 2 km
- See through conductive or highly resistive cover blocking other EM techniques
- All season rapid reconnaissance of large areas

### Diamond Exploration

- Detection of kimberlites below thick overburden and permafrost
- Map crustal thickness
- Map kimberlite-hosting faults

### Environmental and Engineering Studies

- Mapping contaminant plumes and salt water intrusion into aquifers
- Right-of-way studies for pipelines and railways
- Site studies for buildings and dams
- Locating leaks in dams and dikes

### Geothermal Exploration

- Closely spaced measurements locate zones of enhanced conductivity caused by hot fluids and steam. Phoenix surveys have identified hundreds of megawatts of geothermal power world wide.

### Reservoir Monitoring

- Automated array systems for 4-D (time-lapse) measurements

### Groundwater Exploration

- Detection of aquifers, from shallow to 1,000 metres or more

### Deep Crustal Research

- Map subduction zones, suture zones where ancient land masses collided, active rifts and paleo-rifts (up to 15km deep)

### Earthquake Prediction Research

- Automated MT stations for earthquake precursor studies in Japan since 1996.



Toronto is Canada's largest city and its financial centre, as well as the home of many companies specializing in exploration technology. Toronto is in southern Ontario, the province that accounts for about one third of Canada's mining activity.

3781 Victoria Park Avenue, Unit 3,  
Toronto, Ontario, Canada M1W 3K5

Tel +1 416 491-7340

Fax +1 416 491-7378

mail@phoenix-geophysics.com www.phoenix-geophysics.com

