



## GeoNews

Autumn 2010

### Company Profile

Since our parent firm was founded in 1979, **SARAFINCHIN Associates Ltd.** has expanded into a group of specialist geoenvironmental engineering companies providing consulting engineering services in geotechnical and geological engineering, geoenvironmental engineering and hydrogeology, construction inspection and laboratory materials testing, and earth science management.

The principals of our geoenvironmental engineering companies have completed over 3000 projects in Canada, United States, Mexico, the Caribbean, South America, Africa and the Middle East. Our projects comprise a wide spectrum of engineering assignments involving buildings, transportation, telecommunications, mining, forestry, dams, residential, commercial, industrial and municipal land development, slopes, tunnels and marine structures.

Our geoenvironmental engineering group is owned by dedicated key employees who assist our public and private sector clients to ensure innovative, cost effective, and technically sound solutions on schedule and within budget.



Sarafinchin Consulting Engineers participated in the 7th Annual Future of Canada's Infrastructure Summit held on September 14 and 15 at the Holiday Inn, Yorkdale, Toronto.

This summit was well attended by industry and government leaders with a focus on sustainable infrastructure development.

We were pleased to be a participant and sponsor of this summit. Delegates had an opportunity to see how Sarafinchin's specialized and innovative geoenvironmental engineering and geoenvironmental solutions can support sustainability and reduce project costs through maximizing use of recycled materials, optimizing management of onsite soils and imported fills and reducing demolition waste; support carbon neutrality through geothermal feasibility analysis and sourcing of local building materials; and characterize and manage contaminant loading through environmental site assessments, quantitative analysis, risk assessment, remediation and offsite disposal using cost-effective and sustainable methodologies.

### GEO NEWS HEADLINES

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- **The Future of Canada's Infrastructure**
- **Geotechnical Services**
- **GeoEnvironmental Services**
- **Inspection and Testing Services**

### Geotechnical Services

Our company carries out comprehensive geotechnical investigations commencing with regional geology and subsurface investigations through to detailed geotechnical parameters and report recommendations for the site as a basis for the planning, design, construction and operation of civil engineering and resource sector projects.

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A major portion of our geotechnical work involves foundation engineering. An adequate foundation is essential to the successful performance of all buildings and structures. Soils and foundation engineers use drilling, coring and geophysical exploration methods to assess subsurface conditions and engineering design parameters related to bearing capacity and settlement. Analysis, design, comparison of alternate foundation systems, construction supervision and load testing are carried out for spread footing, rafts, augered caissons, driven piles, pressure grouting, underpinning and shoring systems.

### **GeoEnvironmental Services**

Sarafinchin Associates Ltd. provides geoenvironmental and hydrogeological assessments, contaminant studies and site remediation to current regulations in conjunction with affiliate chemical laboratories.

Environmental site assessments are performed in a phased approach to identify and quantify potential risks associated with land transfer, development, financing and technical audits.

Phase I environmental site assessments are carried out to identify environmental concerns by reviewing historical documents and air photographs, performing local interviews and inspecting sites. When we complete a review, we give the client a detailed environmental assessment report that outlines identified environmental concerns that should be reviewed in a Phase II.

In a Phase II, our experienced site assessment specialists develop a program for review that ranges from simple soil samples taken on site to a detailed groundwater monitoring program. We provide our clients with the most economical and efficient program alternatives to identify the scope of concern. Phase II assessments provide you with practical solutions and estimated budget figures to allow the client to implement site remediation.

At the site remediation stage we develop effective remediation procedures to clean up the subject property, either through water or soil treatment/removal or by using other techniques, to bring it back into regulatory compliance. Completion of all three phases provides assessment, explanation and solutions for dealing with known, or more importantly, unknown environmental liabilities.

### **Construction Inspection and Laboratory Testing Services**

Our clients recognize the importance and benefit of selecting proper materials and providing quality control, construction inspection and materials testing services to ensure the successful performance of civil engineering and mining projects. This requires an understanding of the properties and behavior of construction materials, expertise of current quality control test apparatus and methods, and field and management experience with various site and environmental conditions and construction practices. After a review of engineering reports, design specifications and construction drawings, the inspection and supervision are provided by qualified field engineers and technicians to confirm the quality of materials and workmanship for the project. Our testing laboratories are certified by CSA and CCIL and we participate in MTO correlation programs.

### **Other GeoEngineering Services...**

In addition to the services described above, our company provides a wide range of geoengineering services to both the public and private sectors. Our geoengineering project experience includes the following:

- *Power Generation*
- *Transportation and Communication*
- *Industrial Development*
- *Municipal Development*
- *Commercial Development*
- *Residential Development*
- *Institutional Development*
- *Mining and Forestry*
- *Dams and Reservoirs*
- *Marine Structures*

A company information package is available.

All requests for proposals, or meetings to review your present and future project needs, may be arranged at...

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