

The **Turkey MINING** Show 2013



The insider's guide to mining in Turkey

In-depth interviews into the
experiences of 6 mining companies
operating in Turkey

We asked...



Birol Kaya | Director General |
Fe-Ni Mining Limited



Alp Malazgirt | Chief Executive
Officer | Yildirim Holding



Alp Gurkan | Chairman |
Soma Grubu



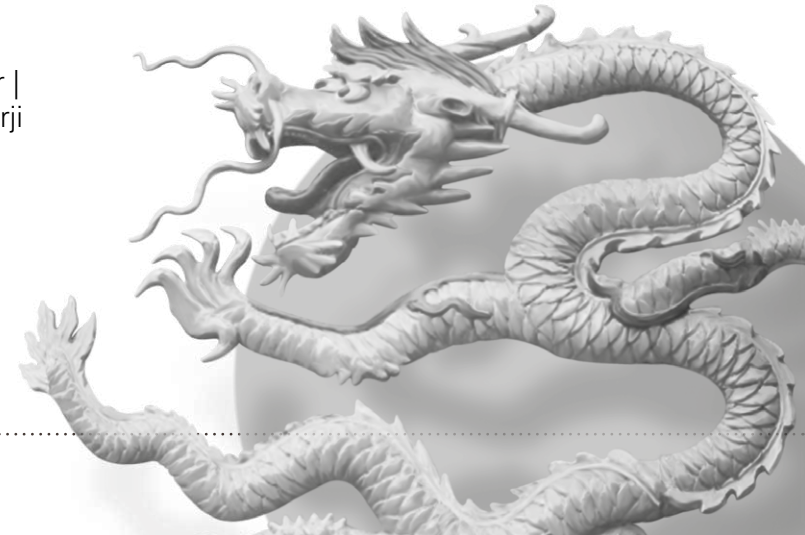
Barış Sayiner | Chief Engineer and
Head of Metallurgist & Research
& Development lab | Koza Gold



Steve Williams | President |
Pasinex Resources Limited



Mehmet Bali | General Director |
Madenbank Madencilik ve Enerji





Birol Kaya
Director General
**Fe-Ni Mining
Limited**

Which minerals / metals hold the best opportunities in Turkey?

According to our evaluations, iron and construction materials hold the best opportunities in Turkey. For the improvement of the industrialization of the country, iron and steel production must be increased. In this sector, Turkey has become 8th biggest steel producer globally. The demand for iron, nickel, chromium and manganese will increase from year to year.

Which areas within Turkey have the greatest exploration potential?

Turkey as a whole has great exploration potential, as the country has so many unexplored areas.

How strong are the local infrastructure arrangements?

In general, local infrastructure arrangements are good. Transportation infrastructure is expanding and land and railway transportation is becoming faster every day. We have had no problem establishing energy and water systems to mine sites.

Have you faced any security or political issues whilst working in Turkey?

We have not had any notable political issues. New mining laws were accepted by Turkish parliament in June 2010; both old and new mining laws offer mining companies great opportunities. There are sometimes strict rules to obey, and for these reasons we and other companies experience some interruptions to our mining activities. In general though, we do not find security and political issues to be a problem operating in Turkey.

How have you found working with local communities? Do you have a CSR program in place and what advice would you give to companies looking to integrate well with the local community?

Fe-Ni Mining has been working closely with the local communities since the start of our operations. 80% of our workers are employed from the vicinity. This helps the economic development of local towns and villages.

With regards to the preservation of the environment, Fe-Ni Mining has numerous contacts within local municipalities and with the governorship of Eskişehir, and will implement a forestation program near to the mine location. A campaign is in place to ensure that 20,000 trees will be planted during a 3 year period.

Additionally, Fe-Ni Mining will soon be creating a new CSR program for future activities.

Which of the incentives offered by the government have you found most attractive?

The Ministry both has created many investment incentive schemes on general, regional, large scale and strategic levels. These include:

Customs Duty exemptions; VAT exemptions; TAX reduction; social security premium support (employer's share); land allocation and interest support.

What's the number 1 factor that would help improve your mining operations in Turkey?

In general, fuel prices are too high in Turkey. During mining operations and the transportation of ores to ports or end-user destinations, the cost of fuel forms the highest percentage and the main component of total costs. In order to improve our mining operations, a regulation should be developed for the reduction of fuel costs.

What should mining companies know about operating in Turkey before starting operations?

International mining companies must have a thorough understanding of new Turkish mining law. Doing business in collaboration with established Turkish partners will also simplify their operations in Turkey.

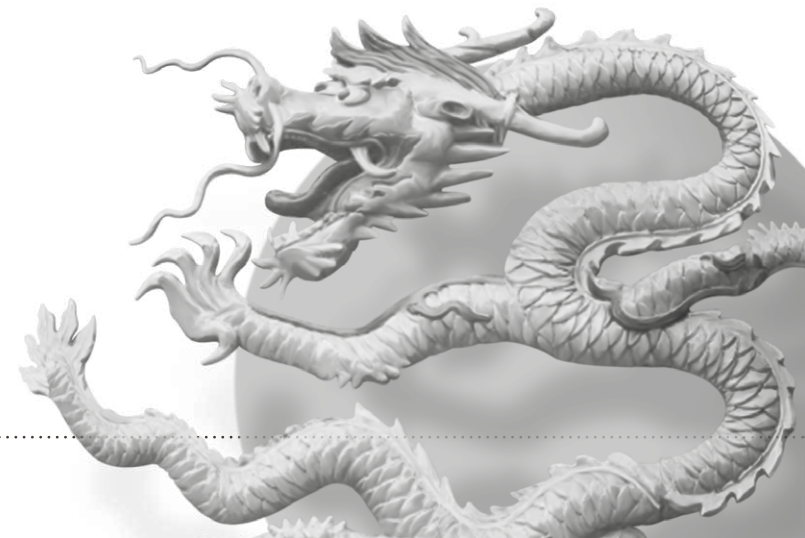
Key Takeaways

Top minerals / metals... Iron and construction materials.

Working with local communities... 80% of our workers are employed from the vicinity.

No.1 factor to improve mining operations... A regulation should be developed for the reduction of fuel costs.

International mining companies must... Have a thorough understanding of new Turkish mining law.





Alp Malazgirt
Chief Executive Officer
Yildirim Holding

Which minerals/metals hold the best opportunities in Turkey and why?

Due to its complicated geological makeup, Turkey is one of the wealthiest countries in the world in terms of minerals. The country's underground resources help rank it 28th in terms of total production capacity and 10th in terms of its wealth of mines, among 132 countries known for global mining. Turkey is predominantly rich in industrial raw materials, in addition to metallic mines, energy raw materials and geothermal resources.

Of the 90 minerals traded in the world today, 77 exist in Turkey, where approximately 60 different mines and minerals are produced.

On a global scale, Turkey is home to 0.4% of ore mineral reserves, 2.5% of industrial raw material reserves, 1% of coal reserves and 0.8% of geothermal potential.

Turkey is richest in borate minerals, with an accumulation of 3,066 billion tons that accounts for 72% of the world's reserves.

The theoretical gold potential in Turkey is estimated to be 6,500 tons, the second highest in the world. Efforts have unearthed 600 tons of gold to date, with 10% of the existing potential discovered.

With a theoretical geothermal energy potential of 31,500 MWt (megawatt thermal), Turkey ranks 7th in the world and first in Europe.

In keeping with the policy of meeting the energy need with domestic resources, the coal mining exploration projects conducted in the past 3 years have drilled 300,000 meters deep to unearth 2.3 billion tons of new coal reserves, which boosted the existing 8.3 billion coal reserves that remained stationary for 20-25 years by 28%. Meanwhile, the total lignite reserves reached 10.6 billion tons.

In terms of industrial raw material potential, Turkey is home to 2.5% of the world's reserves, though the rate of reserves for some industrial raw material minerals is much higher. Industrial raw materials account for the largest portion (70-80%) of the country's mine exportation.

Which areas within Turkey have the greatest exploration potential and why?

There are five minerals in Turkey defined as strategic minerals: these are boron, thorium, uranium, chrome and gold. The entirety of Anatolia has great exploration potential, particularly the eastern and southeastern regions. In addition to the five minerals listed above that are considered to be strategic minerals for Turkey, these regions must see an increase in exploration for iron, lignite, copper, zinc, lead and industrial raw materials.

Have you faced any project challenges whilst operating in Turkey?

The biggest project challenges in the mining industry are caused by delays due to issues with mining law and legislation. This is more of a delay than a challenge, and naturally, delays lead to time loss.

Some of the project challenges faced are:

- Difficulties in applying the mining policies set forth
- The small size and insufficient scale of existing reserves
- Insufficient funding and the fact that the risk approach isn't suitable to mining
- Issues caused by specific corporate structures
- Issues caused by enforcement
- Issues with improving the cooperation between universities and the industry
- Lack of public relations in the mining industry and issues caused by misinformation
- The lack of information regarding the importance that mining holds in daily life
- Misinformation regarding the use of cyanide in the search for gold
- Lack of information regarding the contributions that gold mining make to the Turkish economy
- General lack of database
- The issue of education
- Lack of coordination and communication within the industry
- High rate of workplace accidents and occupational illnesses
- Lack of specialization in industry professionals

- Lack of occupational education of those working in the field
- Inability to make the inactive mines and facilities contribute to the national economy or up to international standards

How strong are the local infrastructure arrangements?

Since mining activities are generally carried out in rural, mountainous areas far from settlements, it's impossible to talk about a widespread local infrastructure. Local infrastructures generally exist in the nearest areas of settlement, and companies looking to operate the mineral field must create the infrastructure in the area themselves. That's why mine experts must bring the infrastructure services that exist in the areas of settlement nearby, all the way to the field or create new ones. In order to create this infrastructure, efforts must be carried out in keeping with mining law and legislation, as well as with environmental regulations.

Have you faced any security or political issues whilst working in Turkey?

No: as long as companies have a good knowledge of the Employment Law, Mining Law and regulations, Environmental Law and regulations, Commercial Code and other legislations, and they follow the new legislations and adhere to the rules, they won't face any issues.

It's crucial to know the legal regulations very well and to keep up with new developments.

How have you found working with local communities? Do you have a CSR program in place and what advice would you give to companies looking to integrate well with the local community?

Our company's aim is to utilize the regional underground resources to boost the local industry and obtain the maximum amount of profit from the ores found beneath the ground. In doing so, the company provides jobs for the local population, which directly contributes to the improvement of the local economy.

The aim of local communities or administrations shares a common denominator with our company's aim. In this sense, working with local communities or administrations is beneficial both for the local community and for the mining company's image.

Our company has CSR (Corporate Social Responsibility) projects, some of which have been realized over time while others are pending the appropriate environment and conditions. These projects include:

- The establishment of social meeting houses for the local population where Yildirim Holding is located
- The allocation of heavy equipment belonging to Yildirim Holding for infrastructure or services
- The construction of preschools, elementary schools, science high schools and vocational high schools to be turned over to the Ministry of Education
- The construction of a culture and arts center
- Regional forestation and landscaping efforts

- Organization of various athletic activities; making sports more attractive and boosting interest in them by rewarding accomplished athletes
- Hosting various environmental activities in order to achieve a clean, livable environment
- Organizing workshops aimed to develop handicrafts native to the region

It's vital to work with local communities or administrations for a company's image, and to break down local prejudices. The mining industry is the target of many NGOs, environmental associations and environmentalist individuals. It's possible to break down the prejudices created by these associations and individuals by working together with the local communities or administrations and by taking on CSR projects.

In this respect, keeping in mind the needs of the local population and the industry in which operations are carried out, the local population must be informed, members of the community must be employed as production personnel and, in a sense, the company must be made indispensable for the regional economy.

Which of the incentives offered by the government to international companies, have you found most attractive?

The most attractive incentive form is what we call direct financial incentives, or the cash grants given to firms to cover their financing costs. This incentive type holds importance for firms, yet tax exemptions, low-interest loans, energy aids and space allocations

are more useable and realistic incentives in lieu of cash grants, which can be used in limited amounts.

What's the number 1 factor that would help improve your mining operations in Turkey?

Developing technology generates the need for many minerals previously not produced, or produced sparingly. Exploring, finding and operating on these minerals requires technology and patience. Turkey ranks among the top countries in the world when it comes to mineral diversity, yet the exploration efforts in our country are very much insufficient. The existence of the high-technology minerals mentioned above are not completely known, and the exploration efforts in our country need to be improved. There must be a risk capital for exploration. In addition to sufficient resources, there is also the need for educated, experienced personnel, machinery and equipment.

In mining activities, there is need for very advanced exploration efforts, feasibility studies, metallurgic tests and, above all else, extensive knowledge of the geology of the area to be operated. The decrease of high-grade minerals and, consequently, the growing need for deep mining both require extensive work to be done prior to beginning production. Mining efforts must be carried out in a way that works with the environment. The possible effects must be determined and the necessary precautions taken before beginning operations. The exhausted minerals must be rehabilitated and the fields recovered. During operation, the effects must be monitored and checked constantly.

What should mining companies know about operating in Turkey before starting operations?

In addition to their own areas of expertise, international mining companies looking to operate in Turkey need to know about Turkey's employment legislation and labor law. These include the following:

- Law on the Work Permits of Foreigners
- Mining Law and regulations
- Environmental Law and regulations
- Commercial Code
- Forest Law
- Highway Traffic Law and pertaining regulations

Key Takeaways

Area with greatest exploration potential...

Anatolia, particularly the eastern and southeastern regions.

Biggest project challenges... Are caused by delays due to issues with mining law and legislation.

No.1 factor to improve mining operations... There's a need for educated, experienced personnel, machinery and equipment.

International mining companies must... Be aware of Turkey's employment legislation and labor law.



Alp Gurkan
Chairman
Soma Grubu

Which minerals/metals hold the best opportunities in Turkey?

Turkey is a resource rich country in terms of borax, gold, copper-zinc-lead complex minerals, nickel, industrial minerals, and marble.

Turkey is on the Tethyan Metallogenic Belt, which offers significant potential for gold and copper-zinc-lead complex minerals.

Which areas within Turkey have the greatest exploration potential and why?

The areas with the greatest exploration potential for gold and copper-zinc-lead are:

- The Biga region
- The East Pongites
- Zamanlı (Kayseri) region

For copper and zinc:

- Southeastern Anatolia

For chromium:

- Bursa
- Eskişehir
- Aladağlar (Southern Kayseri)
- Erzincan-Erzurum region
- Eastern Antalya

Have you faced any project challenges whilst operating in Turkey?

Project challenges include delays caused by bureaucracy, as well as additional regulations introduced in the environmental impact assessment procedures and the forestry law.

Have you faced any security or political issues whilst working in Turkey, and how have you overcome these?

The laws and regulations in Turkey are transparent and all local and multinational companies are treated equally. Soma Grubu does not face any security issues.

How have you found working with local communities? Do you have a CSR program in place and what advice would you give to companies looking to integrate well with the local community?

We see local communities as stakeholders in our mining activities and thus establish social, economic, cultural and sporting relationships with them. The fact that our company is a continuous employer and is community-friendly in its endeavors means that it's positioned as a credible entity in its operating regions.

Which of the incentives offered by the government to international companies, have you found most attractive?

Investment incentives are offered to all Turkish and multinational companies equally. The new incentive regime sets forth duty-tax and VAT exemptions, significant reductions in corporate

taxes, interest subsidization, employee income-tax subsidizations, which will help to attract sizeable investments to the mining sector from abroad and Turkey.

What's the number 1 factor that would help improve your mining operations in Turkey?

The utilisation of the latest technology and continuous training and improvement of our company's technical team and workers are critical success factors to improve our mining operations

What should mining companies know about operating in Turkey before starting operations?

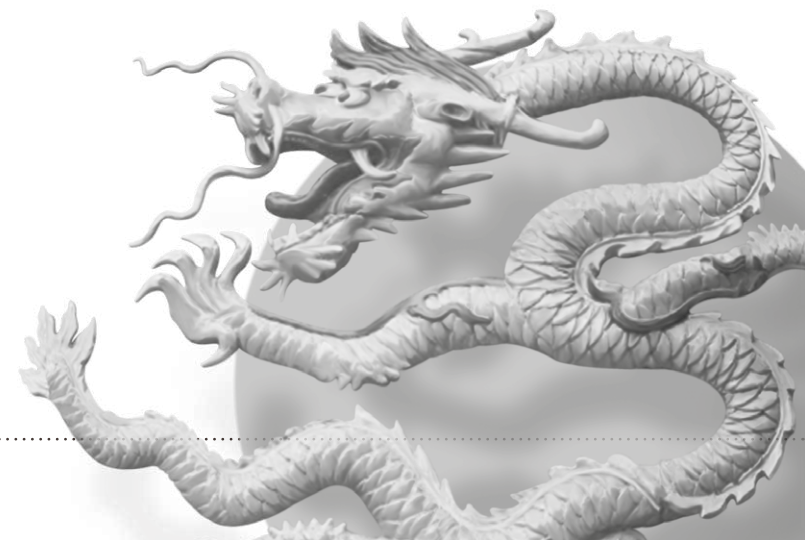
All companies willing to operate in Turkey should meticulously examine the laws and regulations, and allocate resources to understand the economic cultural backgrounds and relevant infrastructure at project locations. A retrospective evaluation would depict that companies who have taken this path have been successful in their investments.

Key Takeaways

Biggest project challenges... Include delays caused by bureaucracy.

No.1 factor to improve mining operations... Greater availability of the latest technology and continuous training and improvement.

International mining companies must... Understand the economical, cultural backgrounds and relevant infrastructure arrangements at project locations.





Barış Sayiner
Chief Engineer and
Head of Metallurgist
& Research &
Development Lab
Koza Gold

Which minerals / metals hold the best opportunities in Turkey?

I believe gold production holds the best opportunities. Gold production by cyanide leaching is a new technology for Turkey's mining sector. It started with Ovacik Bergama Gold Mine, which had the first CIP plant in Turkey, established by Australians.

The Ovacik CIP plant was commissioned in 2001 and since then, the local workforce has learned how to use this new technology. The mines were purchased by Koza Gold in 2005 and the plant now operates with a 100% Turkish workforce.

Koza Gold also purchased two other CIP plants in Gümüşhane Mastra and Eskişehir Kaymaz. In addition, a number of international firms have established gold mines in various parts of Turkey, and many Turkish engineers and operators have been looking to process these CIP plants. There are also plans to develop additional CIP plants in Turkey.

Which areas within Turkey have the greatest exploration potential?

In terms of gold, all regions of Turkey have great potential. Many economical reserves have been discovered and studies for commissioning these reserves are continuing all the time.

Some examples of gold mines which are planned to start in the near future are: Kayseri Himmetdede (located in the middle of Turkey); Ağrı Diyadin (in the East of Turkey); and Çanakkale (in the west of Turkey). Plus, more discovered gold reserves await commissioning in the near future.

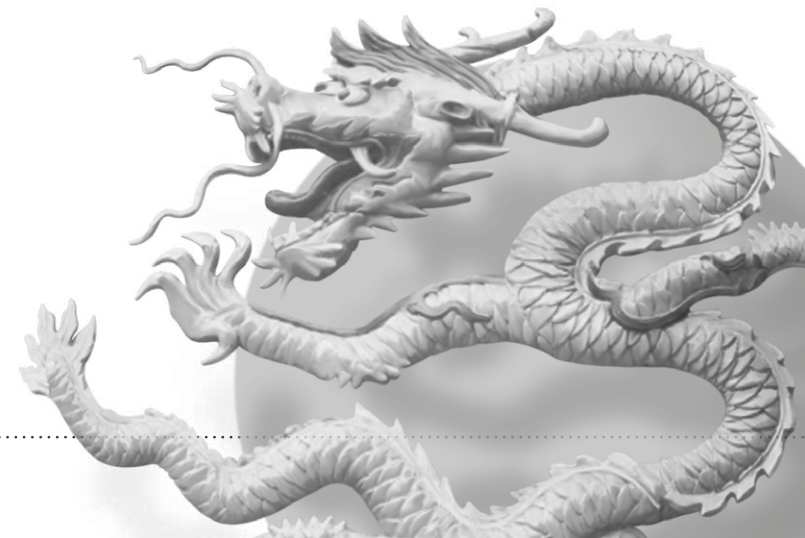
What's the number 1 factor that would help improve your mining operations in Turkey?

The number one factor is the availability of staff experienced in modern mining technologies, such as hydrometallurgical processes like gold leaching CIP plants, the production of nickel. It's worth noting that the quantity and quality of experienced staff has been increasing in Turkey.

Key Takeaways

Top minerals / metals.... Gold production holds the best opportunities.

No.1 factor to improve mining operations... The availability of staff experienced in modern mining technologies.





Steve Williams
President
**Pasinex Resources
Limited**

Which minerals / metals hold the best opportunities in Turkey?

In my view Turkey is very under-explored, given the mineral potential that exists in the country and the use of modern exploration methodologies. If I had to select an area with real opportunity I would say that it's in precious and base metals. I think there is a lot of potential for more gold, silver, copper, zinc and nickel discoveries.

Which areas within Turkey have the greatest exploration potential?

As I've said, I think that overall, Turkey is very under-explored. The country has excellent geology for more discoveries, particularly of precious and base metals. I don't think there is any particular area that is more opportune than others except to say that those areas which have seen less or no modern exploration are obviously good targets.

Have you faced any project challenges whilst operating in Turkey?

Getting mineral property title on the land that one may want can be a challenge. There are several components to this challenge. First off Turkey is heavily "sliced and diced" in terms of mineral title polygons. Polygons tend to be small and with unusual geometry that in no way reflects the prospective underlying geology. Inevitably one needs to go

about a systematic and slow process of amassing the land that one wants. Next there is the issue of how to obtain the title for the land that one wants. The routes are private deals, auctions and staking and it is likely that all routes will need to be considered.

Finally, there is the issue of the status of the title at the time of acquisition. If the title has come through auction or staking this will not be an issue but title acquired from third parties may have issues to be resolved. For example, have all obligations been met on the title and has the title already passed to one of operational status?

Have you faced any security or political issues whilst working in Turkey?

No, we have not faced any security or political issues whilst working in Turkey. To this point, Turkey has been a great country to do business in.

How have you found working with local communities? Do you have a CSR program in place and what advice would you give to companies looking to integrate well with the local community?

Pasinex Resources Limited has a CSR program in place. We have embraced the PDAC e3 plus program and are committed to the principles and actions enshrined in these policies. I would recommend to any small junior that they look at and use the PDAC e3 plus program.

It is critical that one has good community relations throughout all stages of exploration and project development. Communication, at all levels, is one of the key cornerstones to this.

What is the number 1 factor that would help improve your mining operations in Turkey?

Pasinex Resources Limited is in exploration with all our projects in Turkey. We would encourage the government to continue to look at improvements to mineral property title processes for acquisition, information, geological and historical information.

What should mining companies know about operating in Turkey before starting operations?

Turkey offers a great opportunity for mineral exploration and project development. There are more significant deposits to be found in Turkey. The country is open for business and encourages foreign investment. Turkey has a great young population that is well educated and willing to "roll up the sleeves" and get to work. Of course, there are challenges but the opportunity far outweighs the challenges.

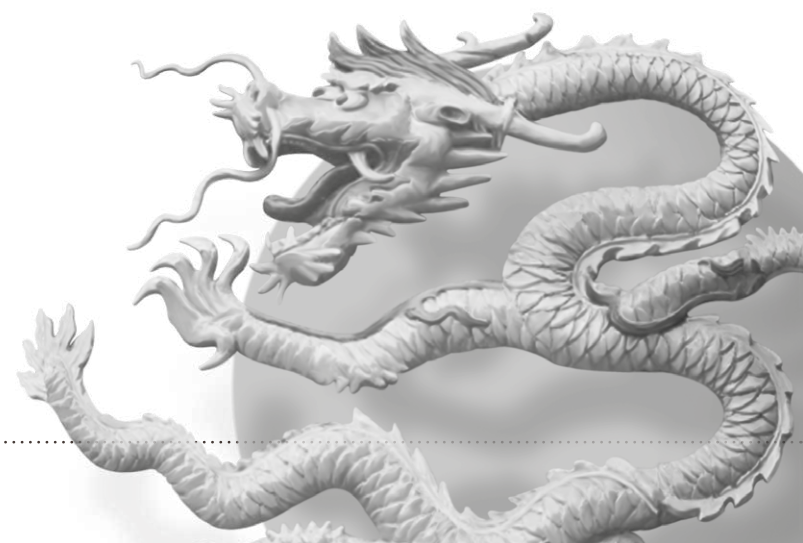
Key Takeaways

Area with greatest exploration potential... Precious and base metals.

Biggest project challenges... Getting mineral property title on the land that one may want.

No.1 factor to improve mining operations... Improvements to mineral property title processes for acquisition, information, geological and historical information.

Working with local communities... I'd recommend that any small junior look at and use the PDAC e3 plus CSR program.





Mehmet Bali
General Director
**Madenbank Madencilik
ve Enerji**

Which minerals/metals hold the best opportunities in Turkey?

Around 60 different minerals are currently produced in Turkey. Natural resources include coal, iron ore, copper, chromium, uranium, antimony, mercury, gold, barite, borate, celestine, emery, feldspar, limestone, manganese, marble, perlite, pumice, sulfur and clay. Turkey is an important player in the international market due to its wealth of reserves, considerable production capacity and geographical advantages for transportation and shipping. Marble, Copper and chromium are major parts, followed by feldspar, boron, silver and gold. Turkey is very important global "High Grade Chrome Ore Exporter" and has been number one in the world since 2005.

Have you faced any project challenges whilst operating in Turkey?

It is difficult to apply all international transparency procedures in creating our database of geological resources and reserves, because of limited human resources and high technology requirements.

Making use of clean energy to conduct our operations is a priority because of undefined procedures. Due to expensive energy it is difficult to create a value add to the raw materials for further use in other industries.

We have put together a team of energetic and competent individuals eager to reach and surpass our goals. But it is not always easy to find well educated team members. Additionally, there are not many people who have been accredited by international geological organizations. Advanced technological requirements for research and development are not yet sufficiently met.

How are the local infrastructure arrangements?

Logistics difficulties still exist because of the location of the source of minerals. Investors have to build local roads in mining area and in order to transport housing facilities, water, energy and transportation.

How have you found working with local communities? Do you have a CSR program in place and what advice would you give to companies looking to integrate well with the local community?

We are aware that a successful mining endeavor depends on the location of valuable resources; we vow that wherever we choose to harvest minerals, we will uphold the strictest safety and environmental standards and help create wealth for the nearby population.

We will endeavor to contribute economic and social value to the areas of operations. This includes the development of education, health, and culture facilities.

What's the number 1 factor that would help improve your mining operations in Turkey?

Knowledge is power. The key to success depends on the accuracy and diversity of geological databases. We aim to compile thorough reports on all our geological findings and encourage the government to provide and support any and all related information.

What should mining companies know about operating in Turkey before starting operations?

The Turkish government has re-evaluated the rules and regulations of the mining industry and this will help international mining companies to achieve their goals.

International mining companies must work with carefully selected local companies. Transparency, materiality, and competency are a must.

International investors should start from the R&D phase with local partner if they do not want waste money.

Key Takeaways

Biggest project challenges... It's not always easy to find well educated team members, plus advanced technological requirements for R&D are not yet sufficiently met.

No.1 factor to improve mining operations... The key to success depends on the accuracy and diversity of geological databases.

International mining companies must... Work with carefully selected local companies, starting from the R&D phase.

We'd love to hear your views on all of this...

Join the conversation



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We'd love to meet you too...

We're hosting Turkey's biggest mining congress and expo between 18 - 19 June 2013 and would love to see you there.

The Turkey Mining Show brings together local government executives, investors and mining companies to talk about:

- How to win exploration licenses in Turkey
- How to raise capital from investors interested in mining projects
- How to select the right companies and projects to invest in
- How to source the latest equipment and technology to ensure efficient operations
- Which government incentives suit your requirements
- Which are the best minerals and metals to exploit throughout the nation
- Which are the best emerging exploration opportunities
- Which projects provide the best ROI

The Turkey Mining Show is the country's biggest mining event: an exhibition, a series of technical seminars & a strategic congress.

It's the place where mining companies, government officials investors & solution providers come together to maximise Turkey's mining potential.

The Turkey Mining Show is where business is done & contacts are made.

If you have a project or story to share at the show please contact Skye now: skye.ferguson@terrapinn.com

www.terrapinn.com/turkeymining

