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TCC lends helping hand to Balochistan

In the wake of the worst natural calamity in the country's in history, TCC has once again risen to the occasion to lend a helping hand to the people of Balochistan in their hour of need. The recent heavy downpour has caused severe flooding across the national landscape including Khyber Pakhtunkhwa, Punjab, Sindh and Balochistan.

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TCC CEO handing over cheque to Chief Minister of Balochistan

Editor's Note

Greetings!

At the time of this edition of Yaqeen going into print, Pakistan is ravaged by the worst floods in its history. Millions of people have been affected in one way or another, and countless others have lost their lives. The disaster has reached catastrophic proportions and proper rehabilitation can only begin when the floods start to recede. Our hearts go out to those who are suffering.

It has been in the wake of this recent natural calamity that TCC has yet again risen to the occasion and donated a sum of Rs. 8.5 million to the Balochistan Government to aid their flood relief efforts. Yaqeen shares the details of the donation made in a spirit of solidarity and cooperation with the people of Balochistan.

The Company has also asked employees to make voluntary contributions to the TCC Employee Fund Matching initiative, whereby employee donations will be matched 100% by the Company and donated to UN's 'Emergency Response Fund for Pakistan'

We also had the pleasure of welcoming Aaron Regent, President and Chief Executive Officer of the Barrick Gold Corporation. This was Mr. Regent's first visit to Pakistan since becoming CEO of Barrick in 2009. Yaqeen brings you the details of

his meetings with the Prime Minister Syed Yousuf Raza Gilani and Chief Minister of Balochistan Nawab Aslam Khan Raisani along with TCC CEO Gerhard Von Borries.

Mr. Gordon Thorpe recently took over as Chief Financial Officer (CFO) of TCC. Mr. Thorpe is a seasoned professional and has had the opportunity to work in Pakistan before. Please join us in welcoming Mr. Gordon Thorpe to the TCC family.

TCC endeavours to be a Balochistan-centric company. Where possible, the Company tries to make positive impacts especially in the socio-economic areas of communities where it operates. This month's Yaqeen brings you stories of people who have helped TCC contribute to communities, and of initiatives taken by the Company for their sustainable development.

We hope for the newsletter to continue to be a true reflection of TCC's vision for shared success. As always we'd like to encourage constructive feedback from everyone that reads TCC. Your valuable contributions and comments are always welcome.

Happy reading, and a very blessed Eid to all

Editorial Team

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Sustainable development around the Reko Diq Project

TCC is a socially responsible company that contributes towards the sustainable development of the communities where it operates – development which will have a positive impact on the lives of people well beyond the life of the mine. The approach is to enable people so that they are able to realize their own aspirations over time, and it is with this approach that the TCC's Community Relations (CR) team has undertaken various development initiatives in the Nokkundi municipality near Reko Diq.

Taking into account Nokkundi's lack of modern educational facilities, TCC took steps to make basic computer and English language education available for the youth of Nokkundi. To make this possible, the Company decided to provide technical and financial support to the Nokkundi NGO Network (NNN) - a group of local NGOs operating in the Nokkundi Tehsil - to establish a Computer Training Center and an English Language Center. With the collaboration of NNN, imparting of computer literacy and English language skills has already commenced, with the focus on providing quality education. Qualified teachers for the language and computer centers have been hired from the Noshki and Mastung Districts. About



200 students are currently enrolled in the first phase of level-1 of both courses. The initiative of establishing such centers is the first of its kind taken by any company in the area.

Besides education, TCC is also committed to the capacity-building of local women and providing them with income-generating skills. A second batch of women from the Nokkundi

community has recently begun tailoring classes supported by TCC. The first batch to receive this training was a group of 12 women from Humai village, while the current batch comprises 32 local women from Nokkundi. This tailoring training course can enable these local women to generate income using their tailoring skills. The women from the first batch from the Humai village have already completed sewing 100 uniforms for Humai School students, a project given to them women by TCC.

TCC plans to continue taking the initiative through its CR team to work closely with communities to implement integrated development programmes that take into account not only local issues and concerns, but also the long-term development needs of the community through consultation and cooperation.

If you have any ideas for a social development programme that you would like to share with us, write us an email at yaqeen@tethyan.com



What's important to us: Investing in human potential

TCC sees itself as a catalyst for change. Once the TCC's Reko Diq project takes-off, it will create wealth in the Balochistan province through employment generation and revenues in the form of taxes, profits and royalties for over 55 years of the mine life. All this requires an initial capital investment of US\$ 3.3 billion and operating expense of about US\$ 400 million every year for the life of the mine.

However, TCC's investment plan goes beyond this—we believe in investing in people!

At TCC, we aim to measure performance not just by financial results but also by our social and environmental performance.

Since 2006, when the present JV partners (Barrick and Antofagasta) of TCC took over; more than \$1.4 million have been spent on community development initiatives. Further in pre-operational stages and during operations, TCC plans to make more significant investment in community development:

Employment Related Local Workforce Training and Supplier Development:

TCC will commit significant funds towards employment related local workforce training and supplier development.

Infrastructure & Public Services

TCC will invest in infrastructure and public services throughout the mine life and also will aim to participate in co-funded initiatives whereby monies provided by communities, government and NGOs are leveraged to contribute towards funding water, sanitation, small-scale power and irrigation programs within the project's area of influence.

Education, Training and Scholarships

TCC will provide at least 500 scholarships per year throughout the mine life to school-aged children. Criteria for awarding these scholarships will be developed together with local communities and existing educational establishments within Balochistan. At least 30 university scholarships will be awarded for further education opportunities (Undergraduate Degrees, Masters Degrees and PhD's) within Pakistan and in reputable centers based in Europe and the USA.



Health and Water Supply Initiatives

Along with education, TCC will also make health and water provision a top priority within its Community and Social Investment Plan. TCC will also seek to promote water resource use efficiency through technological transfer, technical assistance and hydro-geological research.

Economic Development /Productive Activities

TCC intends to promote development of alternative livelihood opportunities, which are not entirely dependent on its mining operations, in areas local to the project which can be sustainable beyond the life of the project.

Other Community-Based Projects

TCC intends to work with local communities to increase their awareness of sustainability principles and to encourage them to participate in their own development at grass root level. Funds will be allocated to support capacity building of CBOs in partnership with credible NGOs.

Goodwill Contributions

TCC will continue to support local cultural, recreational and sporting activities throughout the mine life to promote a healthy and wholesome environment around the project.

Education for tomorrow

TCC is an organization that strives to achieve future development and long-term livelihood of the communities neighboring its operations. It believes that education is one of the basic and most important areas where a positive impact can be made.



Hayat Khan, English Language Instructor, TCC

In this context, Yaqeen introduces you to Hayat Khan, TCC's resident English lan-

guage instructor. He is one of the dedicated individuals who helps TCC make a contribution not only towards the education of the community in Humai, one of the neighbouring villages of the project, but also teaches English language at the Reko Diq camp site where TCC and other contractors' employees attend classes regularly to improve their English language skills.

Born in Quetta, Balochistan, Hayat Khan received his high school and secondary education in Quetta itself. He completed his intermediate studies there and then received his B.Sc. (Hons) and Masters degrees in Chemistry from Balochistan University in 1996. He then completed his international TESOL/TEFL course (Teaching of English to Speakers of Other Languages) from Thailand in 2009, sponsored by TCC. He had also received English language training from the International Rescue Committee (IRC) in 1993 and later on, joined the same organization to teach English as foreign language. In the meanwhile he started to study English literature and completed his studies in 2000. Since he was interested in teaching English, he kept teaching at various English language centers in Quetta. He joined TCC as an English language teacher in 2005 and has been

teaching at the community school in Humai. This school is supported by TCC and the company provides the students with uniforms, school books and other necessary items.

Q: Where did you receive your primary education? And why did you choose 'English Language' as a professional subject?

A: I received my primary education from the Killi Sheikhan High School in Quetta in 1987 and my intermediate education from the Government Science College, Quetta in 1990. I was interested in English during my school days and have since committed myself to teaching English because I feel that knowledge of this language is the need of the hour.

Q: What is the role of TCC in promoting education in the area?

A: TCC operates in a very backward area with a low education ratio; so as part of the Community uplift program, the Company started to support a government school in the neighboring village and provided them with two teachers to help promote education. The Company also provided the school with books, uniforms and other items including sta-





from Siah Reg village to the school and then back home again.

Q: Do you think the company will continue the education program in future as well?

A: Yes, I believe so, because the company is committed to promoting education in the area and hopes to continue the same practice in the future.

Q: What are your main responsibilities at the site and in the community?

A: The main objective of my job is to impart English language education on-site and to neighboring communities. I commute to school on a daily basis where I teach students

and train the local teacher. I have also been teaching English language at the site where TCC employees and contractor personnel regularly attend classes. Besides this, I coordinate with different department for translation of official documents.

and train the local teacher. I have also been teaching English language at the site where TCC employees and contractor personnel regularly attend classes. Besides this, I coordinate with different department for translation of official documents.

Q: Does the company have a good rap-

port with neighboring communities?

A: There are very few villages near the project site and the Company has played a role in bringing about positive developments. The people of these neighboring communities are quite optimistic about it. Above all, they think the company must remain here.

Q: What progress have the employees made so after you joined TCC?

A: TCC has provided its employees with an opportunity to learn English and advance their professional careers. Those who regularly attend classes on-site have improved their English language skills which has helped them advance their skills through more training. It is very important for the employees to be able to communicate in English since TCC is a multinational company and there are many foreigners in its employ. There are many TCC personnel who have no educational background but they can now communicate in English to some extent. The employees are committed to learning and being trained in the English language.

In the community, school students have been studying English language as a subject in their curriculum to pave the path to higher studies. This has been a great learning experience and opportunity for all of the students and will help to prepare them for the road that lies ahead.



Aaron Regent visits Pakistan

President and Chief Executive Officer of the Barrick Gold Corporation, Aaron Regent recently visited Pakistan. Barrick Gold is part-owner of TCC along with Antofagasta Minerals Plc. This was Regent's first visit to Pakistan since becoming CEO of Barrick in 2009. He was accompanied by two senior officials of Barrick, Cassie Boggs, Senior Vice President (also former CEO of TCC) and Kelvin Dushnisky, Executive Vice President.

The purpose of the visit was to go to the Reko Diq site to interact with the TCC team and also to engage with senior leadership and officials of Governments of Balochistan and Pakistan. Unfortunately due to bad weather conditions Barrick's delegation could not make it to the camp site at Reko Diq.

Aaron Regent accompanied by his colleagues and TCC's CEO Gerhard Von Borries, first met with Balochistan Chief Minister Nawab Mohammad Aslam Khan Raisani at Quetta. Provincial Ministers Mir Asim Kurd Gailu, Mir Sadiq Umrani and Sardar Aslam Bizenjo and Chief Secretary Balochistan, Mir Ahmed Bakhsh Lehri and other senior government officials were also present. Later in Islamabad, Mr. Regent's delegation held a meeting with Prime Minister Syed Yusuf Raza Gilani at the Prime Minister Secretariat and also met with Minister P&NR, Naveed Qamar; Minister Finance, Hafeez Sheikh and Chairman BOI, Saleem Mandviwala.

In all his meetings Aaron Regent emphasized the tremendous



From left to right: TCC CEO Gerhard von Borries, Barrick EVP Kelvin Dushnisky and CEO and President Aaron Regent meet Balochistan Chief Minister Raisani

potential that the Reko Diq project holds for Balochistan. It would generate 10,000 direct employment opportunities during the construction phase and about 2500 once the operations begin. Additionally, the two leading mining companies of the world, developing the Reko diq project; bring with them world class safety and environment standards. Reko Diq mine operations would also result in transfer of technology and promotion of down-stream industries. At a dinner hosted by the Ministry of Finance, Aaron said that to make this mining project a success, cooperation of all key stakeholders was critical, and reiterated the commitment of co-owners TCC to take the project forward.

TCC welcomes new CFO

Mr. Gordon Thorpe recently took over as Chief Financial Officer of TCC.

Mr. Thorpe is a professional in his field, being a Certified General Accountant (CGA) from Canada, and brings with himself 31 years of professional experience, of which 20 years have been on an international level. He has previously worked in, among other countries, Pakistan (Uch Power), Indonesia, Kazakhstan, Mongolia, Nigeria, and Singapore.

He has also, prior to this position, been an advisor to Barrick Gold on some of their mega projects.

At TCC, Mr. Thorpe will be looking after Finance, Administration, Human Resource, Compliance & Performance, IT & Communication and Supply Chain / Procurement.

Please join us in welcoming Mr. Gordon Thorpe to TCC.



TCC lends helping hand

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On August 25, TCC CEO Gerhard Von Borries handed over a cheque for Rs. 8.5 million to the Chief Minister of Balochistan Nawab Aslam Khan Raisani to support the Government of Balochistan's efforts for provision of relief to the flood victims.

Mr. Gerhard von Borries stated, "TCC feels that it is just the right thing to reach out and help people in times of distress and to make a concerted effort in reducing the sufferings. We stand by the brave people of Balochistan in these trying times and hope

for the earliest provision of relief to the affectees."

TCC's donation is meant to help in alleviating the suffering of the affected masses and to sustain through these tough times.

As a responsible corporate citizen, TCC has always endeavored to provide humanitarian aid in case of natural disasters in Balochistan. Recently in June, TCC donated Rs.8.5 million for the cyclone affectees in Gwadar; in 2008 donated Rs.10 million for the victims of the earthquake; and in 2007 aid worth Rs.7.5 million was provided to the victims of the floods in Chaghai.

Awareness for environmental challenges

LEAD Pakistan conducted a journalists training workshop in collaboration with TCC under the title “Journalism for Sustainable Development: Tools and Techniques for Effective Environmental Reporting” on July 17 in Karachi and July 19 in Islamabad.

The workshops brought together journalists from Balochistan, Sindh and Punjab, to discuss environmental issues being faced by the country and what measures could be taken for their mitigation so as to allow sustainable development.

The workshops were divided into different sessions. Facilitator for LEAD Pakistan, Ms. Afia Salam welcomed the participants and highlighted the efforts of LEAD in educating people about environmental changes. Speaking on the topic “Development at the cost of environment”, she said that accurate



briefed participants about the Reko Diq project and responded to queries about the project in detail. Ms. Shah also highlighted the benefits of the Project for Balochistan and Pakistan as a whole. She spoke of the positive effects the Project would have on the GDP of Pakistan and of Balochistan, leaving positive impacts on economy of the province and living standards of the people. She also highlighted how transfer of the latest mining technology would increase the skill levels

and precise environmental reporting was not an easy task in areas where environmental issues were always sacrificed in the name of development or other matters like culture and politics. She said that it was the duty of media to portray and advocate the existing environmental dilemmas of the province among the masses. The journalists were further educated about climate changes and its challenges and impacts. Ms. Salam reminded the journalists that it was their responsibility to create awareness among the masses to curtail the negative impacts of climate change. She also discussed other factors causing climate change and environmental impacts in areas where mining projects were developed.

Samia Ali Shah, Manger Corporate Communications TCC,

of local employees and transform the mining sector as a whole in Pakistan.

Lucas Hekma, leading the Reko Diq ESIA assessment, shed light on the environmental impact of future mining at Reko Diq. He said the Environmental Impact Assessment (EIA) was underway and that TCC had very solid policies in place for environment protection, and that the aim was to implement a world class environmental management system for the Reko Diq mine.

Other speakers at the workshop included geologist and mining specialist Dr. Sajid Hussan, Aamara Saeed of PIDE and Mr. Rafi Ul Haq, Natural Resource Manager, IUCN.

TCC submits Reko Diq Project Feasibility Report

TCC delivered the Feasibility study report of the Initial Mine Development of Reko Diq project to Ministry of Minerals and Mine development, Government of Balochistan. Speaking at the occasion, TCC CEO Mr. Gerhard Von Borries said, "We are very happy that the Project has reached this important milestone. Based on extensive world class engineering, technical and financial studies by TCC, the viability of the Reko Diq project has been established and we are looking forward to working with our partner, the Government of Balochistan on taking this project towards the construction stage. We are committed to this project and the way it has been designed, it will be a catalyst of social and economic development for Balochistan".

A feasibility study of a mining project determines whether the proven mineral resource is technically and financially viable and is considered an important landmark in mining project development phase. According to the feasibility

report for Reko Diq, the initial mine development investment for the project is estimated at US\$ 3.3 billion (approx. Rs. 272 billion) which includes development of basic infrastructure like power, water and concentrate pipelines, roads, and port development. The project will create 10,000 construction jobs and 2500 permanent jobs when the commercial operations start. Significant opportunities will also be created for local suppliers and contractors for providing services and goods to support mine operations.

The project offers state of the art transfer of mining and beneficiation technology to Balochistan in addition to generation of significant revenues in form of taxes, royalties and profit sharing.

The Environment and Social Impact Assessment (ESIA) of the Reko Diq project is being finalised and will be soon presented to the competent authority.



TCC CEO Mr. Gerhard Von Borries presents Feasibility Report to Secretary Mines and Mineral Development, Government of Balochistan, Mr. Mushtaq Raisani

TCC's vision is to operate a world class copper-gold mine at Reko Diq, Balochistan in a safe and socially responsible way.

Reko Diq Copper and Gold Project Operating Committee meets in Quetta

Government of Balochistan was represented by Secretary Mines and Mineral Development Mr. Aslam Raisani and Director General Mines and Minerals Mr. Bashir Ahmad Mastoi. TCC was represented by CEO Mr. Gerhard Von Borries and CFO Mr. Gordon Thorpe



Mr. Gerhard Von Borries talking about the Project's feasibility study process



Secy. Mines and Mineral Development Mr. Aslam Raisani and DG Mines Mr. Bashir Ahmad Mastoi

Stop and Think

Stopping work to ensure safety of self and others is essential for the continuity of production and timely completion of tasks

Understanding the TCC ‘Field Level Risk Assessment Process’ (FLRAP)

The FLRAP is your pass to a safe day at work every day. By aligning your thinking and observation processes with this safety model you can make the work place a much safer place for all. This is especially applicable to field work at the TCC Reko Diq facility. The harsh desert weather, heavy machinery, electrical equipment and temporary structures demand to-the-letter adherence to the safety procedures for every person to return home safe every day. The FLRAP is a simple approach to keep oneself and others safe by identifying and handling potential dangers.

TCC Reko Diq starts its work day each morning with a departmental team meeting in which targets for the day are set, matters discussed and most importantly safety emphasized in the completion of all jobs. The safety model used by TCC employees is based on five simple steps as described below:

1. Stop & Think: Stop all work and withdraw yourself to a safe distance and think calmly.

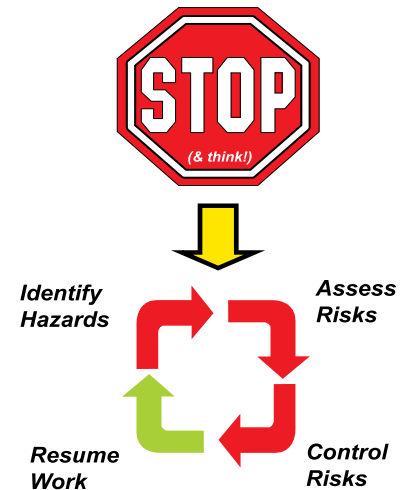
2. Assess Hazards: Look around and determine the extent of danger.

3. Overcome Hazards: Devise solution, seek support if necessary/available and resolve the danger.

4. Restart Work: Once sure of your safety and light-minded now return to your work place.

5. Identify Hazards: Keep observing and highlight potential danger whenever spotted.

Contrary to what many may think, the first step of ‘Stop & Think’ is the most important and most difficult to achieve. The reason is simply the urge in a dedicated worker to complete the task in time without accommodating any delaying factors. With such approach a worker is prone to ignore seemingly insignificant or potential hazards with a ‘will-take-care-later’ approach. This approach generally is the basis of all major accidents. Superb work without any safety precautions is undesired and may hold more damages for the fellow workers and the company in general. TCC encourages its workers on the field to exercise full safety measures even if it



means a delay in the completion of a job. The reward and achievement for TCC as a mining company is in ensuring that every worker returns to his home safe and sound every single day. Employees who uphold this principle are our prime asset since by ‘stopping and thinking’ these workers not only secure themselves but also their fellow workers and company’s properties. These employees eventually make to the team leadership or supervisory positions since they have demonstrated leadership abilities themselves under trying circumstances and contributed to the safety of others and thus continuity of production.

Field Level Risk Assessment Needs: Notes for a Safety Leader

1. Workers to stop and think before doing even routine tasks. Building this new habit will need persistent reminding from you.

2. Critical thinking skills that may be underdeveloped in some workers. Thinking through job steps to assess risks will take practice. Crew discussions will help develop this ability. Using questions to push thinking is essential.

3. Individuals to accept responsibility for thinking and taking action. Asking questions to help workers make assessments and put controls in place instead of telling them what to do will help them accept responsibility. Refraining from telling them what to do may be a bit challenging for you if this way of working is new to you and your crew. Recognizing and rewarding their efforts is important and will motivate them too.

4. Workers to be willing to challenge authority and raise difficult issues. It may be difficult for some workers to challenge how things are being done. Sometimes they will be right and sometimes they will be wrong. Showing that you are willing to listen and consider their ideas is important. Using their mistakes as times to learn rather than times for punishment, will encourage good thinking and help them develop the courage to act on their assessments.

Fitness for professional and personal wellbeing



Gym for TCC employees at Reko Diq campsite

As a company that rates the safety and health as a core fundamental of doing business, TCC takes pride in being committed to providing a safe environment for its employees. As a caring organization, TCC understands many tasks are physically demanding and efforts must be made to work on lack of fitness and stamina which rank high as contributors to injury in the mining industry. To remedy this, the Company ensures that employees are given ample information on the importance of health and opportunities to build and maintain good health and fitness.

Physical fitness comprises two related concepts: general fitness and specific fitness. Specific fitness is task-oriented definition based on the ability to perform specific aspects occupations. Physical fitness is generally achieved through exercise, correct nutrition and enough rest. It is an important part of

life. Both these components are important for a mine worker. Fitness provides strength, flexibility and stamina for the proper functioning of the body. Being physically active also bolsters good mental fitness and helps to manage stress, anxiety and even depression. The main components of fitness are

Physical fitness is generally achieved through exercise, correct nutrition and enough rest. It is an important part of life. Both these components are important for a mine worker.

aerobic endurance, muscular strength and endurance, flexibility and body composition. The right kind of physical and mental exercises and proper intake of nutritious food are the factors that contribute to general fitness. A well-balanced diet not only makes one fit, but also provides all necessary nutrients to keep the body healthy.

Mental fitness, essential for the psychological well-being of a person, is also a key factor in sustaining health. Being fit lowers the risk of various health issues such as cardio-vascular problems, diabetes and depression. It helps to prevent age-related problems and makes one feel active and energized throughout the day. Staying physically fit doesn't require spending hours in a gym using costly equipment to develop muscle mass like body builders. All one requires is to improve power and endurance and be mobile. A systematic workout consisting of

small exercises such as brisk walking, cycling, jogging and swimming can energize the body.

Good Health Habits

Simple foods like vegetables, fruits, nuts, lean meat and pulses help maintain an optimum body weight and can keep one healthy and strong. Improper food habits can lead to obesity and health problems like diabetes and cancer. Avoiding refined and junk food is important since they induce lethargy and dullness. Positive thinking is an es-

Steps to change lifestyles should be gradual not drastic. One must try to make these simple changes a regular habit in order to achieve long-term success.

ential aspect of staying healthy. One needs to clear the mind of negativity and fill it with positive thoughts. These positive thoughts can be extremely energizing and will always lead to good things in life. One can get involved in practices such as meditation and yoga to get rid of negativity and reinforce positive thoughts.

Smoking and consumption of carbonated drinks should also be avoided as much as possible. Daily exercise is required for good health. Exercising in the morning can leave you with a refreshed feeling throughout the day. Exercising can put you in a good mood and it will be easier for you to think positively and keep a healthy diet. Activities like swimming, biking, walking or playing your favorite sport keeps your body healthy. Also, try to do your workout in the open air, since this will be more refreshing.

Steps to change lifestyles should be gradual not drastic. One must try to make these simple changes a regular habit in order to achieve long-term success.



Reko Diq Safety Champions of the Month July, 2010

Recognition awards for good safety performance for the month of July 2010 were presented to the following personnel in August.



Administration Department Aman ullah (Driver)



Maintenance Department Baz Mohammad (Assistant Plumber)



Maintenance Department Gul Mohammad (Mechanic)



Geology Department Imran Akhtar (Sampler)

The Mining Cycle

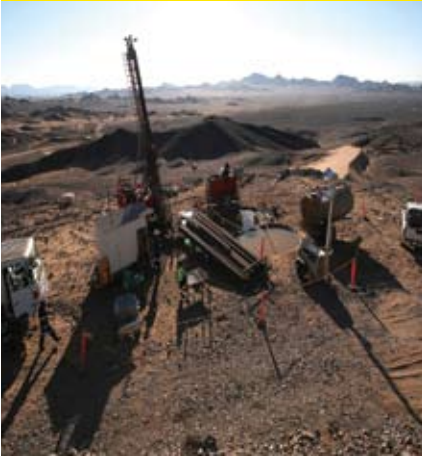
Metals are found as ores buried in the earth. Hidden as they are it is yet another challenge to separate the metal from rock and other mineralization through complex processing.

A typical copper mining cycle starting from first discovery to the first production of metal takes about 12-15 years

New Project Development

Exploration

Starts from Geological Field Surveys; Geochemical and Geophysical Surveys; Sub-surface Sampling and Exploration Drilling.



نئے پراجیکٹ کی ڈیولپمنٹ۔ ترقیاتی کام
ایکسپلوریشن۔ تلاش

یہ جیولوجیکل فیلڈ سروے، جیو کیمیکلز اور جیوفزیکل سروے، سب سرفیس سیمپلنگ اور ایکسپلوریشن ڈرلنگ سے شروع ہوتا ہے

Pre-Feasibility/Feasibility

Pre-feasibility overlaps with the later stages of exploration. This provides inputs for the final feasibility that ascertains whether an identified reserve is economically minable using commercially available mining technology.



پری / فیزہبلٹی۔ اولین امکانیت

ایکسپلوریشن کے آخری مراحل پر کام اور پری فیزہبلٹی اسٹڈی کا آغاز ساتھ ساتھ ہوتا ہے۔ یہ آپریشن کے لئے درکار حتمی فیزہبلٹی کو جواز فراہم کرتا ہے اور اس بات کو یقینی بناتا ہے کہ دریافت شدہ معدنی ذخائر تجارتی طور پر کانکنی کے قابل ہیں

Construction

Construction of access roads and linear infrastructure that would enable mining operations to be carried out. Includes processing units, power lines, rail lines, staff housing and other facilities like full civic amenities in staff housing colonies, playing fields, social spots and extended medical facilities.



کنسٹرکشن۔ تعمیر

رہداری کے لئے سڑکوں اور بنیادی ڈھانچے بشمول پراسیسنگ یونٹس، بجلی کی لائنیں، ریل کی لائنیں اور تمام تر شہری سہولیات بشمول کھیل کے میدان، سماجی مراکز اور طبی سہولیات کی فراہمی کے مراکز سمیت اسٹاف کے رہائشی مکانات کی تعمیر۔

کانکنی کے مراحل

دھاتیں خام صورت یعنی کچ دھات کی حالت میں زیر زمین ہوتی ہیں۔ زیر زمین یہ اتنی گہرائی میں چھپی اور دیگر عناصر کے ساتھ ملی جلی ہوتی ہیں کہ ان کا باہر نکالنا اور انہیں ایک بہت پیچیدہ عمل کے ذریعے دیگر عناصر سے علیحدہ کرنا بجائے خود ایک بہت بڑا چیلنج ہے۔
تانبے کی کانکنی کا سلسلہ اس کی پہلی دریافت سے شروع ہوتا ہے اور خام دھات کی دستیابی پر ختم ہو جاتا ہے جس میں 12 تا 15 سال کا عرصہ گزر جاتا ہے۔

Operations

Extraction

The mining process starts with blasting the rocks containing ore. Ore rock is then transported to the processing facilities.



آپریشنز - عملی کارکردگی
ایکسٹریکشن - نکالنے کا عمل

کانکنی کے عمل کا آغاز کچ دھات کی حامل چٹانوں کو دھا کے سے توڑنے سے ہوتا ہے، پھر چٹانوں کے یہ ٹکڑے مزید کارروائی کے لئے پراسیسنگ کے عمل سے گزارے جاتے ہیں۔

Processing

Ore rock from the mine is put through the primary crushers and then the rotating ball mills along with water. Separation begins by transferring the mixture into a froth flotation chamber. After the flotation process, the ore is referred to as copper concentrate which is dried and sent to the smelting process for refining.



پراسیسنگ - عمل

کچ دھات کے حامل چٹانوں کے یہ ٹکڑے ایک پرائمری کرشر یعنی پینے والی مشین میں ڈالے جاتے ہیں جہاں گھومنے والے بھاری آہنی گولے انہیں پانی کے ساتھ پیس دیتے ہیں۔ پھر طریق شنا پر عمل نثار کے ذریعے دھات کی دیگر مادوں سے علیحدگی عمل میں آتی ہے۔ جس کے بعد کچ دھات کو مرکب تانبہ گردانا جاتا ہے اور اسے خشک حالت میں ریفائننگ کے لئے بھیجا جاتا ہے

Closure

Planning/Implementation

Carefully planned throughout the mining life; the decommissioning and rehabilitation plan is implemented in compliance with highest environmental rehabilitation and naturalization standards and local regulations.



کلوزر - اختتام پلاننگ - منصوبہ بندی
امپلمینٹیشن - نفاذ

کان میں کام کی پوری مدت میں اسے انتہائی احتیاط سے بند کرنے کا منصوبہ بھی موجود ہوتا ہے جس کا نفاذ تمام تر ماحولیاتی بحالی اور مقامی قواعد کے عین مطابق ہوتا ہے۔