خدمات معدنکاری اسپیر

ESPEER
MINING
SERVICES

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1. Introducing ESPEER

ESPEER[1] Mining Services Company was registered in April 2006 under number 396073. The company's work orientation has been the plan and implementation of a wide range of geological and mining projects (exploration, mine planning and mineral processing), geotechnical engineering and the provision of environmental services to industries. Also, feasibility studies and preparation of techno-economical plans for mines and mining industries, as well as management consulting and supervision of plans and allocation of resources are among the services of this company.

In the recent years, support of the private sectors investing in mining projects and advising of investors is one of ESPEER's most important activities.

ESPEER has a special approach with investors, especially holding companies, public companies and private sector entrepreneurs, to implement the results of the evaluation and decision-making cycle in execution and production more quickly.

ESPEER is a multi-purpose organization which employed competent experts in geology, mining and industry, professionally qualified laboratory technicians and office operations team (technical office and logistics team) to manage and execute projects. By combining their technical abilities and work experiences and ethics, they try to provide the highest quality services to the clients.

ESPEER has successful experiences in working in different areas of Iran, and has also been able to expand its activities abroad. Among ESPEERs work experience, the implementation of mining projects in the Caucasus (Georgia, Azerbaijan and Armenia), Central Asia (Tajikistan, Kyrgyzstan, Kazakhstan), Turkey, the Far East, Russia and the Southern America (Peru, Venezuela, Bolivia, Brazil) are more prominent.

[1] Espeer is one of Urmia Lake islands.

2. ESPEER missions and visions

- Conducting strategic studies based on earth sciences and mineral exploration in accordance with international standards in the region and trans-regional target markets

- Branding ESPEER as a trusted investment consultant and evaluation of mineral resources and ore reserves beyond the borders.

3. ESPEER capabilities

ESPEER is an independent entity and offers its services in the form of consulting and contracting, especially to the private sector and investors. Areas of activity of ESPEER are:

- ✓ Investment consulting, for investor groups and holdings financial groups that intend to invest in the mining sector.
- ✓ Organize, lead and supervision technical offices, covering the technical needs of entities that have development plans for their ongoing projects.
- ✓ Fundamental and applied geological studies
- ✓ Design and implementation of exploration programs, mine design, facilities and operation of mines
- ✓ Mining geology (production geology), for feeding processing plants in the mining industry
- ✓ Conducting mineral processing studies in different scales and designing and constructing processing plants
- ✓ Feasibility studies and preparation of technical and economic justification plans for mines and mining industries
- ✓ Conducting EPC projects for mineral processing plans.
- ✓ Technical validation of mining projects and preparation of standard Due Diligence reports and evaluation of mining projects using international codes
- ✓ Preparation of bankable mineral reports with international standards
- ✓ Hydrological and hydrogeological studies
- ✓ Environmental geological investigations and Geo-Hazards
- ✓ Geotechnical and slope stability studies

4. ESPEER Management Team

4-1- Founders & Board of Directors

The founders and board of directors of ESPEER, each with more than 25 years of experience in the most important mining projects in the country, as well as some prominent overseas projects, private sector companies, government and consulting engineers, have records of expertise and management services. This long-term presence and the breadth and variety of activities have given them a unique understanding of the nature of projects, the actual components of work, localized decision-making and implementation methods, and power of tackling the existing challenges. The members of this team have had the opportunity to cooperate and gain experience with most of the technical and executive groups and well-known foreign experts active in Iran.

In the first years of the nineties, he had valuable experience in implementing metallogenic projects in northwestern Iran with help from prominent former soviet geologists, which resulted in the introduction of the Anderian gold deposit. Long-term cooperation with consulting engineering companies in the role of senior exploration geologist and project manager has given him a comprehensive knowledge of mining potentials and operating conditions of mining projects in different parts of Iran. His long presence in Central Asia has led him to become proficient in identifying and exploring specific gold resources (especially gold from sedimentary origin). Currently, planning to guide investors, eager to enter the mining projects market, setting work priorities, drive a roadmap and engineering their presence in the market is his special activity in ESPEER.

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Cooperation with most of the foreign exploration companies that were present in Iran from the nineties to the late 2000s, is one of the main features of his work experience. Continuous activity in regional and large-scale gold exploration projects has given him a comprehensive knowledge of the different genetic environments of Iran's gold resources, which is highlighted in writing the book "The Gold Deposits of Iran". He has worked as a director of exploration projects for international mining companies in different jurisdictions. He is also particularly competent in reporting on exploration projects, metallic ores and mineral reserves and industrial minerals (JORC) as well as international mineral resource valuation (VALMIN) and has earned a Competent Person (CP) certification, which is his specific credential in ESPEER.

Years of experience in private and public mining companies in the exploration of metallic deposits in various geographical areas, along with cooperation with various foreign companies, has given him a special ability to understand the nature of data integrate in exploration and mining projects, so that he is an expert on the subject of "validation of exploratory data". He has received scientific and practical training in the field of geology, production and design of feed programs for processing plants. The combination of organizational system, his ability to organize and manage resources optimally, as well as the ability to adapt to the local conditions of the project sites, has led to his role in ESPEER in launching and implementing large exploration and mining projects.

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- As a top graduate in all levels of education, he entered the job market during his bachelor's degree and has collaborated with most major engineering consulting companies on large mining projects in the country. As a structural geologist, he has a special ability to pick, survey and add relevant data layers to 3D models of mineral reserves, a specialty that is also used in open pit and underground mining development phases for geomechanical analysis and slope stability studies. He has also always had teaching on his agenda and through this, not only maintains daily communication with the academic world, but also optimizes communication with the new generation, making it successful in attracting talented forces and employing them in professional teams

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4-2-Executive managers

The skillfulness of senior managers and project managers in ESPEER is noteworthy in the way that the majority of them started working with ESPEER from project level and are well acquainted with the quality and organizational skills and requirements of ESPEER. This not only gives executive managers a realistic view of project conditions and expertise, but also makes ESPEER's organizational hierarchy a dynamic and ever-growing process.

Table1: List of ESPEER Executive Managers

Senior Executive						
No.	**Name**	**Expertise**	**Qualifications**	**Work experiences (in Years)**	**Work experiences in Espeer (in Years)**	
2	**Alireza Najafi**	**Technical Manager**	**Master of Mine exploration engineering**	**15**	**13**	
3	**Shirin Jahromi**	**HR & Internal Manager**	**Master of hydrogeology**	**14**	**14**	
4	**Hossein Seifi Zadeh**	**Administration & financial Manager**	**Master of Accounting**	**11**	**8**	

Table 2: List of ESPEER project managers

Project Managers					
No.	**Name**	**Expertise**	**Qualifications**	**Work experiences (in Years)**	**Work experiences in Espeer (in Years)**
1	Mozhgan Saeedi	Techno- Economic Studies	PhD in Industrial and Cost Accounting	25	15
3	Hossein Asli	Mineral Processing Projects	PhD in Mineral Processing	16	12
4	Amir Hemati	Mine Exploitation and monitoring projects	Master in Mine Engineering	16	12
5	Fatemeh Eslamdost	Geological projects	Master of sedimentology and sedimentary rocks	16	1
6	Mana Rahimi	GIS projects	PhD in Geoinformatics	25	10
7	Bahareh Oskoee	Project Control	Master of industrial Engineering	14	2
8	Majid BegharNejad	Remote sensing projects	Master of Structural Geology	12	9
9	Ehsan Ghazi	Exploration Projects	Master of Mine Exploration engineering	11	9
10	Haamed Chaghari	Mine Planning projects	PhD in Mine Engineering	7	6
11	Naemeh Hosseinzadeh	Geological Projects	Master of Structural Geology	10	5
12	Hamid Bahari	Exploration Projects	Master of Economic Geology	5	5

5. Professional and administrative team

ESPEER uses the services of full-time and part-time professionals with different specialties. Creating a link between the two concepts of "recognizing the specific requirements of each project" and "identifying key specialties in the geological and mining engineering community" and applying them in the appropriate format is one of ESPEER's special abilities. Staff is organized in a way that allows the permanent and temporary recruitment of domestic and foreign professionals and the creation of working teams according to the needs of various projects, quickly and efficiently.

5-1- Human resources structure

Statistical data related to the structure of ESPEER staff, based on various indicators are presented in the table below.

Table 3: Statistics of ESPEER's manpower composition

Qualification

No.	Qualifications	Numbers	Percentage
74	Ph.D.	17	23
	M,Sc,	32	43
	B.S.	25	34

Gender

No.	Gender	Number	Percentage
74	Female	11	14
	Male	63	86

Contract type

No.	Contract Type	Number	10
74	Full-Time	24	32
	Part-Time	34	46
	Associate	16	22

Profession

all staff	Profession	Numbers	Percent
74	Structural geology and tectonics	7	10
	Hydrogeology	3	4
	Mine Engineering	6	8
	Mine Exploration Engineering	11	16
	Petrology	7	10
	Accounting	4	5
	Sedimentology and sedimentary rocks	1	1
	Geology	9	12
	Economic geology	9	12
	Environmental Geology	2	3
	Engineering Geology	1	1
	Geophysics	2	3
	Geomatics & GIS	4	5
	Chemistry	1	1
	Mineral processing	3	4
	IT	1	1
	Industrial project manager	3	4

5-2- Organization Chart

ESPEER has formed working groups to implement projects proposed by various clients. These working groups are made up of independent professional teams whose activities are coordinated by the project manager. Experts in different job categories and with specialties are selected and depending on the type of activity, in the form of project contracts, full-time or part-time are associated with the project.

An important point in ESPEER's organizational chart is the special attention paid to the internal cross- check system, which is performed by the "higher leadership and supervision" team. The members of this team have been selected from among the prominent experts in each field, who, according to the needs of each project, enter as supervisors in different stages of each project, and the outputs can be considered deliverable only with their approval.

Another important point is the full attention to the topic of "data organization in GIS and 3D data modeling" as a core discipline in all projects, at any level of work and with any size of data available. This is done from the beginning of the work and is gradually completed as the main basis of processing, control and decision making criteria.

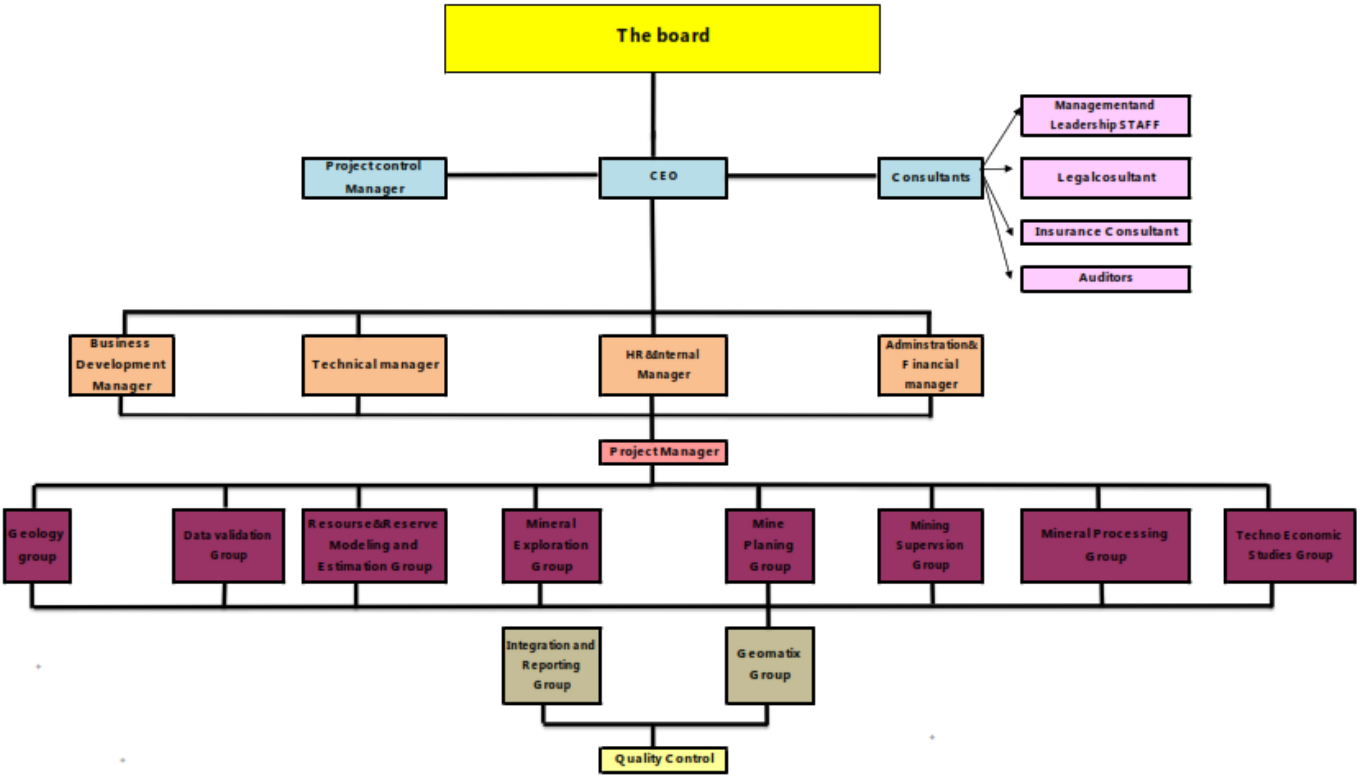


Figure 1: Organizational structure (organogram) of ESPEER

6. Scope of activities and range of projects

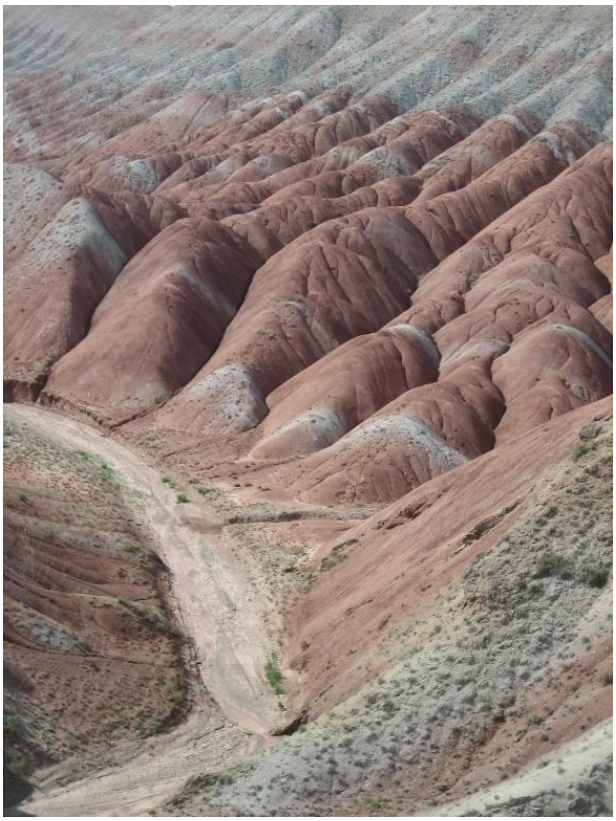
6-1-Work statistics

During 16 years of operation, ESPEER has successfully completed 622 contracts. The statistics of the company's activity, by subject of contracts[2], are given in the following table:

[2] The difference in the number of projects in the total and detailed numbers in the table 4 ,goes back to the cases in which several separate work titles existed in the context of a contract.

Table 4: Work statistics of ESPEER projects, by category and type of project

Work statistics of ESPEER projects, by category and type			
NO.	**Category**	**type of project**	**Numbers**
1	**Mining Investment Consultancy**		**11**
2	**Data Validation and Valuation of Mining Projects**		**54**
3	**Geology**		**17**
3-1		Base Geological Mapping	15
3-2		Geo-Archeology	2
3-3		Geo-Hazard	0
4	**Exploration**		**228**
4-1		Exploration-Planning and Execution	139
4-2		Exploration-Technical and Supervisory Office	23
4-3		Geophysics	7
4-4		Geochemistry	2
4-5		Modeling and Reserve Estimation	14
4-6		Remote Sensing	5
4-7		Regional Exploration	9
4-8		Data Organization and GIS	29
5	**Mining Engineering**		**126**
5-1		Mining-Planning	58
5-2		Mining-Technical and Supervisory Office	27
5-3		Mining-Mining Execution	6
5-4		Mining-Optimization	13
5-5		Mining Geology (Production Geology)	22
6	**Mineral Processing**		**25**
6-1		Lab Scale Processing Tests	13
6-2		Pilot Scale Processing Tests	6
6-3		Processing Plant Engineering	0
6-4		EPC Projects	6
7	**Main Consultant and Projects leadership**		**25**
8	**Environmental Studies**		**14**
9	**Techno-Economic Studies**		**29**
9-1		Feasibility Studies	10
9-2		Techno-Economical Studies	16
9-3		Site Selection Studies	2
9-4		Market Studies	1
10	**Mapping**		**9**
11	**Geotechnics and Hydrology**		**11**
11-1		Geotechnics	5
11-2		Hydrology	4
11-3		Hydrogeology	2
12	**Mineral Commodities Trade**		**2**
13	**Cooperation Memorandums**		**47**
14	**Cooperation ship**		**1**
15	**Mineral Tenements Ownership**		**21**
16			
Total number of contracts			**622**



6-2- Introduction of flagship projects:

6-2-1- Mining investment consulting

ESPEER has access to a lists of mineral projects looking for investors , in various commodity and at different levels of investment, which are formed with valid data and updated periodically.

The goal is to create a portfolio of projects at three levels: "high number, high risk at the base", "low number, low risk in the middle" and "low number, very low risk" at the top, so that the investors line of credit is appropriately distributed at these three levels, and in addition to increasing the chances of success, development costs are covered from the revenue of mining projects.

- **Parsian Investment Company (owned by Parsian Bank) and "Opal Kani Pars"**

ESPEER started his work as a mining consultant for Parsian Investment Company in 2007 by formulating an investment strategy in the field of mining and defining 10 minerals with growing demand. The turning point of this joint cooperation was the establishment of "Opal Kani Pars" company as the first mining holding affiliated to a bank, which now enjoys an active role in the Iranian mining market. In addition, ESPEER has been active in designing and implementing a number of mining projects for this complex.

The project to identify the country's potential investable gold deposits, which was worked on for this firm in 2009, is one of the most successful examples of its kind. The project led to the introduction of twelve exploration projects, which at the time were deemed suitable for acquisition and investment, and most of which became active mines in the following years.

- **Oil Pension fund Investment Company (OPIC) and Kani Naveed Pars**

Cooperation as a trusted advisor to OPIC , in 2013 with the formation of the Mining Projects among the consultants of this huge financial group began and the establishment of "Kani Naveed Pars" company as a mining holding of OPIK Group, was the major result of the efforts. In addition, ESPEER has been active in designing and implementing a number of mining projects .

- **Entekhab Industrial Group**

Entekhab Industrial Group has a successful presence in various branches of industrial production. ESPEER, as a mining consultant, has been trying to start the supply chain of minerals since 2014 especially for Entekhab petrochemical industries. ESPEER has been active in designing and executing 8 mining projects

6-2-2- Data validation projects

The quality of data in the country's mining projects has always fluctuated under the influence of the two requirements of "project engineering process" and "meeting administrative requirements". As a result, there is an urgent need to organize and validate the underlying data of each project and give it real weight in the continuation of exploration and mine design programs, so that along with revitalizing the available data, entry of invalid data to technical structure of the projects is prevented and the decision-making process is done with better quality.

ESPEER sees itself as the leader in advocating the necessity and designing authentication methods in a local way. Some of the significant and influential projects performed are presented below:

- *Andrian Gold Exploration Data Accreditation and Organization Project (Kharvana, East Azerbaijan), Regional Mining Co. of Azerbaijan*

The initial exploration of Andrian gold started in 1992 and by 2006, a huge amount of geological and exploratory data had been produced by various domestic and foreign working groups. ESPEER collected and reorganized all these data, and by designing proprietary software and hardware methods, in addition to validating each component of visual, digital or analytical information, provided for the possibility of reusing them with a certain weight in reserve models. Andrian Gold Mine, owned by Zarrin Dagh Astargan Company, is currently being operated by a foreign investor.

• *Shahkouh Tin Exploration Assessment Project (Birjand, South Khorasan Province), Minerals Research and Application Institute*

In the case of the Shahkouh Tin showing, huge volumes of exploratory reports and geological investigations at various scales had been generated over more than three decades, making it impossible to identify the true level of exploration and to design complementary projects. With the implementation of this project, the real quality of the data was determined and a correct assessment of the exploratory worth of this project was obtained.

• *Sonajil Copper Exploration Project (Heris , East Azerbaijan), Oghabe Talayie Arasbaran Company*

Sonajil is one of the most important metallic potentials in the northwest of the country, which despite the high volume of drilling carried out by previous owners, not only it did not lead to the introduction of copper reserves, but also the epithermal vein quartz gold reserves were overlooked.

During the new exploration project, by validating the data of the previous exploration operations, a real picture of the work area was obtained and the project design path was provided with reliable background data. Exploration operations are currently underway on the porphyry copper resource, as well as the epithermal gold mining development program and building of a processing plant with the joint investment of a foreign-Iranian firm.

6-2-3- Mining projects from exploration to extraction and processing

The most important indicator in evaluating the success rate of an exploration program is the correct targeting, optimal design and conversion of an exploration finding into a "mine". The following selected projects are specifically selected from the cases where the work plan started from the beginning of "exploration and potential search" programs and has become an active mine and plant by implementing exploration, mine design and processing studies.

• ARIA-JONOUB Iron Mine (Zarand Kerman, Aria Jonoub-e-Iranian Company), magnetite reserve (Fe%28@24mt), to supply plant feed with a capacity of 460 thousand tons per year

• Gariz Gold Mine (Taft, DSM Co.) Gold oxide and sulfide reserves (Au ppm1.8@4 t) to supply plant feed with a capacity of 90 thousand tons per year

• Hadeed Iron Mine (Zarand Kerman, Aria Gohar Hadeed Company) Magnetite reserve (Fe%55@8mt) to supply plant feed with a capacity of 460 thousands tons per year

• Sorkheh salt mine (Sorkheh, Semnan, Semnan Soda Ash company) with (NaCl%96@30mt) reserve to supply plant feed with a capacity of 400 thousand tons per year

• Meelad Limestone Quarry (Sorkheh Semnan, Semnan Soda Ash Company) with (CaCO3%93@20mt) reserve to supply plant feed with a capacity of 100 thousands tons per year

• Aftar Limestone Quarry (Sorkheh Semnan, Semnan Soada Ash company) with

(CaCO3%95@9mt) reserve to supply plant feed with a capacity of 600 thousands tons

per year

• Bonab Silica Quarry (Bonab, East Azerbaijan, Sahand Silica company) with (SiO_2%97@3mt) reserve to supply plant feed with a capacity of 350 thousand tons per year

6-2-4- Master consulting and leadership projects (technical office)

On master and strategic consulting projects, ESPEER appears in the role of technical office, by providing human resources and meeting entire needs of the project, including engineering requirements in the relevant branches. In the case of mining projects, the technical office provides services directly.

Some of the key projects in this regard are presented in the table below.

Table 5: List of projects of master consulting and leadership (technical office)

NO.	Contract Date	Contract Subject	Client
1	2007-07-01	Placer iron mines of Khaf, industrial soil of Mehran Abadeh, Vanarch manganese mine of Qom	Ehya-ie Maaden-e Sepahan Co.
2	2008-07-27	Exploration projects	Opal Kani-e- Pars Co.
3	30-04-2009	Exploration drilling projects	Country Exploration Services Company
4	2010-08-21	Zarand iron ore mine	Aria Jonoub-e Iranian Company
5	2011-02-13	Qala Zari copper mine, Birjand	Mina Kan Co
6	2011-10-05	Meskani copper mine, Anark	Meskani Copper Company
7	2013-02-03	Exploration projects	Faraz Zamin Parsian Co
8	2014-02-17	Exploration projects	Koomeh Madan-e Pars Mining Company
9	2014-10-21	Sonajil Cu-Au Project, Harris	Oqab-Talaee Arsbaran Company
10	2014-10-20	Evaluation and validation projects	Sadr Jahan Mines Development Co
11	2015-04-22	Exploration projects	Kani Navid Pars Mining Company (OPIC)
12	2017-09-20	Evaluation and validation projects	Shahed company
13	2017-12-25	Gariz gold mine	DSM Company
14	2018-04-04	Hajib and Chalambar industrial soil mines, Qazvin	Parsian Gulf Mining Exploration Company

6-2-5- Mine Planning and Mining-Geology (Production Geology) Projects

Until recently, the need to consider mining planning studies for small and medium-sized private sector projects was not very common. With the widespread entry of the private sector in investment on mines, the importance of mining engineering design in reducing production costs, optimizing production and extending the life of the mine became clearer.

The mining-geology (production geology), covers the topic of ore feed by implementing, blending plans and stockpile management. The purpose of this work is to provide balanced feeding of the grade diversity of the mine, so that the desired grade and tonnage of the processing line is provided and the efficiency of the mine is not reduced. Some of the key projects in this regard are presented in the table below.

Table 6: List of major projects of mine planning and production geology

No.	Contract Date	Project Name	Employer
1	2008-08-05	Sarcheshme copper mine pit bench mapping	Behsam CO.
2	2011-01-09	Mines of Neka cement, Iljaq potash, Nain cement factories	Country Exploration Services Company
3	2012-01-17	Zarand iron ore mines (Hadid and South Aria)	Aria Jonoub-e Iranian Company
4	2009-12-09	Limestone mines of After, Milad, Ahvan, Lito and Sorekh	Semnan Soda Ash Company
5	2014-10-07	The Kahneh salt mine of Larestan	Larestan Salt Crystal Company
6	2014-11-22	Gariz gold mine-Taft	DSM Company
7	2018-08-04	Nasim copper mine, Bardskan	Payesh Madan company
8	2018-12-04	Sharaf Abad gold mine (open pit and underground), Varzghan	Zarkavan Mineral Exploration Company, Arsbaran
9	2019-07-31	Silica Mines Totekhane Bonab, Kokia Urmia	Tabriz Sahand Silica Industries Co

6-2-6-Regional Exploration Programs

During the 2010s, the implementation of regional exploration projects by leading public (and private) groups accelerated significantly. According to the executive by-laws, exploration in the regions should start as soon as possible and lead to a smaller area. ESPEER has been instrumental in generating technical knowledge leading to the implementation of such projects, using a combination of legacy background data, field databases, previous work, and geological ground truthing, which has been used in several projects and has now become a practice.

Some of the key projects in this regard are presented in the table below.

Table 7: List of flagship projects in regional exploration

No.	Contract Date	Region Name	Employer
1	2014-02-08	General exploration of Saravan region of Sistan and Baluchistan province	IMIDRO- Exploration Sector Empowerment Plan
2	2014-04-11	Prospecting Saravan - Southern Saravan section	IMIDRO- Exploration Sector Empowerment Plan
3	2015-05-31	Polymetal mineral resource reconnaissance phase project in Takab-Piranshahr area -in West Azerbaijan	IMIDRO- Exploration Sector Empowerment Plan
4	2015-09-21	reconnaissance phase of polymetal mineral resources in Khosh Yilagh area-Golestan province	IMIDRO- Exploration Sector Empowerment Plan
5	2015-12-27	reconnaissance phase of exploration region of Nir-Zorajabad in Ardabil province	IMIDRO- Exploration Sector Empowerment Plan
6	2016-04-03	Mineral resource Prospecting project in Khosh Yilagh area of Golestan	IMIDRO- Exploration Sector Empowerment Plan
7	2016-07-20	Polymetal mineral resource prospecting project in Tarem area of Zanjan	IMIDRO- Exploration Sector Empowerment Plan
8	2020-01-15	prospecting of South Khorasan ranges	IMIDRO- Exploration Sector Empowerment Plan
9	2020-09-15	Geochemical studies of streamsediment and heavy minerals of the Chaghoo - Haji Abad block, central 2 Polymetal of Tehran, Alborz and Qazvin provinces	IMIDRO- Exploration Sector Empowerment Plan

6-2-7- Other flagship projects

Flagship projects in other ESPEER lines of work are listed in the table below.

Table 8: List of other flagship mining projects

No.	Project type	Project Name and Employer
1	Mineral processing	Aria Jonoub iron ore, Zarand (Arya Jonoub-e Iranian Company, 2009), Gariz sulfur and oxide gold ore (DSM Co, 2006), Mako silica ore (Ardvand Company, 2014), Bonab silica ore (Sahand Silica Compmay, Tabriz, 2014)
2	Environmental Assessment	Miyaneh Steel Development Plan (Azerbaijan Steel Company, 2006), Bonab Steel Plan (Banab Steel Complex, 2006) Environmental assessment of Tabriz industrial estates (Jolfa and Bilordi, 2009)
3	Geological hazards	The project of securing the historical monuments of Taqbostan Kermanshah (Cultural Heritage Organization, 2013), the plan of the Safari Recreation Complex (Atek Consulting Engineers, 2015)
4	Hydrology and hydrogeology	Hydrology and hydrogeology studies of Sungun copper mine (Pars Olang Consulting Engineers, 2013), hydrology and hydrogeology studies of Asalouye petrochemical site (Mehr Petro Kimia Company, 2016)
5	Geotechnics	Sari Gonai Gold Complex (Country Exploration Services Company, 2009)
6	Techno-Economic studies	Akhtaran Gold Project (Akhtaran Company, 2014), Makoo Manganese Processing Project (Madan-Fonoon-e Makoo Company, 2007), Perlite Cryogen Production Project (Gohar Kavosh Company, 2007)

6-3- Overseas projects

ESPEER, as a team of professional service providers in the mining sector, has been able to expand the scope of its activities beyond Iran by mastering the standard work procedures on an international level, the mechanisms of project definition and implementation and the relevant professional requirements, thus expanding beyond the borders of the country[3].

The most significant projects performed, often in the form of management contracts for well-known international companies, were in the following geographical areas:

• Caucasus region (Georgia, Armenia, Azerbaijan), gold and copper projects

• Turkey, lead, zinc and non-metallic projects

• Malaysia, Placer Tin Projects

• Central Asia (Tajikistan, Kyrgyzstan, Kazakhstan), gold placer and coal projects

• Far East (Russia and Mongolia), base metal and precious metal projects

•South America (Peru, Venezuela, Bolivia and Brazil), base metal, precious metal, iron and manganese projects

•Northern America (Canada), Iron Ore (BIF)

• Africa (Tanzania, Chad, Namibia and Sudan), metallic projects

In the meantime, the presence in Central Asia is more widespread and prominent, and in addition to representing some investment companies to develop presence in the mining investment, independent act to establish several joint companies in the mining fields, as well as obtaining several explorations permits and exploitation of placer gold in Tajikistan are among our record.

[3] Due to NDA signed with clients, all related data is considering as a sensitive confidential data with no exclusion. More data would be revealed after proceeding the formalities in need.

6-4- Special ideas

Part of ESPEER's work is devoted to conducting scientific and executive studies on a number of specific ideas. For this purpose, with the existing knowledge on market trends and the needs of industries, specific cases are targeted and efforts are made to gradually collect data and solve technical problems. Over time, the dossier of these projects on various topics will be completed and ready to attract investment.

7- Co-operations partner companies

In line with its goals and to increase its ability to participate in the field of engineering services and mining investment, "ESPEER" has entered into Memorandums of Understanding with some reputable domestic and foreign companies. Based on these memorandums of cooperation, the use of information, work experience in specific topics and the services of the expert and management team of these partner companies and strategic partners have been provided.

Table 9: List of partner companies

.	Company	Nationality	Field of work	Cooperation, duration	LOGO
1	Saman Yeta Madan	Iran	Design and Ecxecution Mining projects	From 2005, 2years	
2	Ankobra Resources Ltd.	England	Investment and development of mining projects	From 2006, 1year	
3	Kheyber Resource Ltd.	BVI	Investment and development of mining projects in Caucasus and Afghanistan	From 2006, 1year	
4	Lrzeh Sakht-e-Savalan	Iran	Design and execution Geotechnical projects	From 2006, 1year	
5	Pichab Kavosh	Iran	Design and Ecxecution Mining projects	From 2006, 2years	
6	tunnel-e- Rad	Iran	Design and execution Geotechnical projects	From 2007, 1year	
7	Yidae Mining Co. Ltd.	China	Design and Ecxecution Mining projects	From 2007, 1year	
8	Behineh Sazan-e-Maaden (Behsam)	Iran	Design and Ecxecution Mining projects	From 2008, 2years	
9	Geological Institute of Azerbaijan (GIA)	Azerbaijan Republic	Metallurgical studies Northwest of Iran	From 2008, 3years	
10	Georgian Geological Services Center (GGSC)	Georgia	Investment and development of mining projects	From 2009, 6month	
11	Khadamat-e-Ekteshafi-e-Keshvar	Iran	Providing exploratory drilling services	From 2009, 2years	
12	Promica	France	Chemical industries (phosphate)	From 2009, 5years	

.	Company	Nationality	Field of work	Cooperation, duration	LOGO
13	Vichem	Switzerland	Chemical industries (phosphate)	From 2009, 5years	
14	8wells Group	United Arab Imaret	Chemical industries (phosphate)	From 2009, 5years	
15	Altun Kupery	Iraq `s Kurdistan State	Investment and development Phosphate mining projects in the Kurdistan region of Iraq	From 2009, 6month	
16	Al-Sadeer	Iraq `s Kurdistan State	Investment and development of phosphate mining projects in Kurdistan region of Iraq	From 2009, 6month	
17	ANTAL	Kazakhstan	Investment and development of mining projects in Kazakhstan	From 2010, 1year	
18	Falat-e-Asia	Iran	Investment and development of mining projects, In the field of industrial soils	From 2012, 1year	
19	Sahrakav	Iran	Design and execution Geophisycal projects	From 2012, 1year	
20	Pars Pey Azma	Iran	Design and execution Geophisycal projects	From 2013, 2year	
21	Sherkat-e-Binolmelal-e-Danesh, Mohandesi va Ebtekar	Iran	Investment and development of mining projects in Tajikistan	From 2014, 5years	
22	Royal Kanyab-e-Khavarmianeh	Iran	Providing exploratory drilling services	From 2014, 1year	
23	Knasaran Binaloud	Iran	Providing laboratory services	From 2016, 1year	
24	Kavoshgaran	Iran	Design and Ecxecution Mining projects	From 2016, 3years	
25	Pars pey Sang	Iran	Design and Ecxecution Mining projects	From 2016, 3years	

.	Company	Nationality	Field of work	Cooperation, duration	LOGO
26	Wardell Armstrong	England	Determining the category of reserves Mining and evaluation	From 2018, 3years	
27	Payesh Madan-e-Houshmand-e-Pasargad	Iran	Education Courses	From 2017, 3years	
28	BOR Institute	Serbia	Design of open put and underground mines, processing studies	From 2018, 2years	
29	DSM Co.	Iran	Investment and development of mining projects	From 2018, 1year	
30	Amitis Tejarat Arman (Ata)	Iran	Mineral processing	From 2022, 1year	
31	Kavosh sanat jam	Iran	Providing exploratory drilling services	From 2022, 1year	

8- Memberships, Certificates of Professional Competence and Certificates of ESPEER

A detailed list of all memberships, professional qualifications, and certificates that ESPEER has received during its tenure is provided in the tables below.

Table 10: List of memberships of ESPEER in professional societies and institutions

No.	Name	Membership code	Period	LOGO
1	Financial credit and banking investment consultants	749	From 2006, 11years	
2	Association of Exporters of Technical and Engineering Services of East Azerbaijan	30	From 2008, 2years	
3	Iran Tunnel Association	-	From 2009. 1year	
4	Iranian Association of Management Consultants	13138	From 2011, 7years	
5	Association of Research and Development Centers for Industries and Mines	1960	From 2011	
6	Iran Project Management Association	C-962-90	From 2011	
7	Mining Engineering Organization	70029	From 2011	

Table 11: employers Acknowledgments

No.	Reference	subject	LOGO
1	DSM Co.	Launching of gold mining project	

Table 12: List of Professional Competence and Certificates of ESPEER

No.	Certificate	issuer	Degree	Membership code	period	LOGO
1	License to establishment of a technical and engineering unit	Ministry of Industries and Mines	-	105/3104	2010-2006	
2	Technical and engineering research License	Ministry of Industries and Mines	-	106/3104	2006-2010	
3	Qualification certificate Entrepreneurial consulting	Pars Kani Company, on behalf of the Ministry of Labor and Social Affairs	D	PK-EC-PM-AB-004	2006-2007	
4	License to establish a technical engineering unit with environmental expertise	Ministry of Industries and Mines	-	شماره 105/14677	2007-2010	
5	:2007 :Certificate: ISO9001	DQS GmbH-Germany	-	395430QM08	2009-2011	
6	Certificate of professional qualification in Feasibility studies	Association of Credit Consultants and Investment Banking	ج	گ-7070	2009-2020	
7	certificate:2008 :ISO9001	ABICert-Italy	-	QBC-339	2013-2016	
8	Membership certificate	Mining Engineering Organization	-	ش-70029	Since 2011	
9	Trademark registration certificate (brand)	Trade Marks Registration Office	-	الف-) 90(041268	Since 2015	
10	Certificate of competence to verify the technical and	Mining Engineering Organization	-	70551/ No.230	Since 2017	

No.	Certificate	issuer	Degree	Membership code	period	LOGO
	financial competence of legal entities					
11	Certificate of Qualification for Consulting Services (Sajat)	Presidential Administration of Strategic Planning and Supervision	3	No. 312867	Since 2017	

9- Communication with ESPEER

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Tel:(+98)2122064785-6
Fax: (+98)2122066204

WhatsApp:09902722158

Email: info@espeer.com info.espeer@gmail.com

Website: www.espeer.ir

Active workshops:

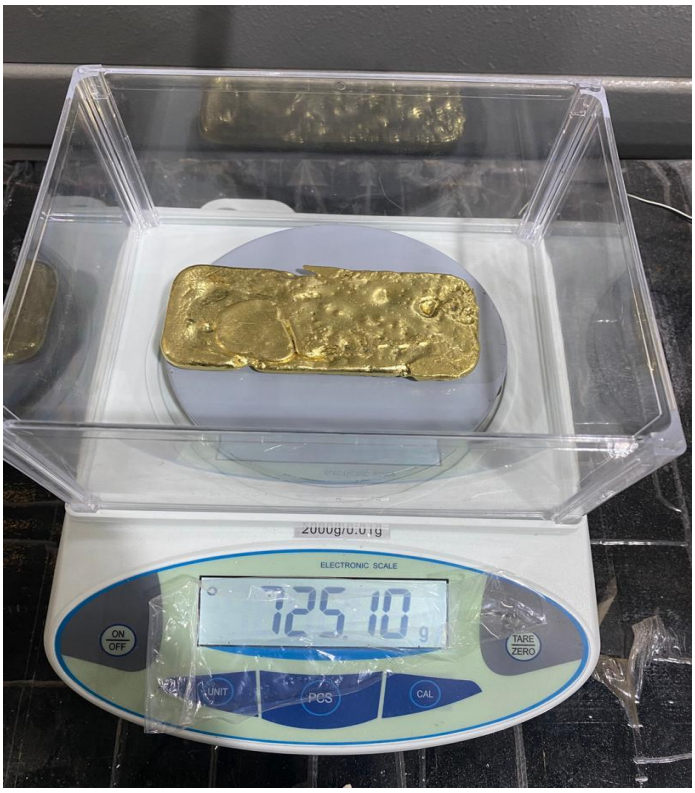
- Semnan supervision workshop: (Semnan, Sorkheh, Semnan sodium carbonate factories, Engineer Mr. Amir Hemmati).
- Yazd monitoring workshop: (Taft, Gariza mine, Dr. Hamed Chagari)
- Haris supervision workshop: (East Azerbaijan, Haris, Asbkhan, Engineer Mr. Hamid Bahari)
- Javazm supervision workshop: (Kerman, Javazm, Guodkalvari, Dr. Hamed Chagari)

10- Gallery

Open pit of Sorekh salt mine,Semnan

The mining areas of Gariz gold mine in Taft

Mine quarry of Aftar limestone, Semnan



The first gold bar produced in Gariz mine in Taft

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