

KPE

KISH PETROLEUM ENGINEERING





"Having accumulated valuable reservoir studies and operational experiences over the past two decades, KPE is now concentrated on improved/enhanced recovery technologies and operations. The vision is rooted from the company's deep recognition of subsurface structure and driving mechanisms, as well as the industry's need for maintaining production capacity."

Alireza Behbahaninia
Managing Director



KISH
PETROLEUM
ENGINEERING

Expertise Works...

KISH PETROLEUM ENGINEERING

How We Became KPE ?

KPE provides a wide range of services from reservoir studies to drilling operation management.

Kish Petroleum Engineering (KPE) was incorporated in 1999 as a subsidiary of Oil Industries Engineering and Construction (OIEC) to provide upstream engineering services. Relying on two decades of experience in Iranian oil and gas industry, with remarkable technical expertise and know-how, the company is now capable of rendering a wide range of upstream consultancy and operational services including geoscience studies, reservoir engineering, drilling engineering and operation, production and completion engineering, surface facilities design, field studies and preparation of Master Development Plans (MDP).

To cover the whole chain of upstream services as the company's main strategy, KPE has also equipped itself with operational capabilities in the last decade. That has enabled KPE to manage and execute operational projects such as drilling, completion and enhanced/improved recovery projects. In addition, the company has recently entered into the field of logistics services by adopting an integrated management approach in order to reduce operational costs and accelerate projects execution in an efficient manner.



Field Study Projects:

- Full field studies and preparation of development plans for over 20 Iranian oil and gas fields such as South Pars, Aghajari, Mansouri, Rag-sefid, Cheshmeh khosh, Salman, etc.
- Drilling supervision services and field study for kish gas field



Operational Projects:

- Engineering and implementation of acid fracturing technology in Azar oil field
- Engineering and management of drilling operation in 22 wells of South Pars phases 20 and 21
- Integrated logistics services for drilling operation in South Pars phases 20 and 21



Human Capital

Aligning Experience with Cutting Edge Knowledge

Staff knowledge, expertise and experience are the main asset in our business.

To KPE, human resources orientation and capability development are necessities rather than choices. Therefore, benefiting from the industry's most competent professionals and developing their capabilities, from qualified experts to fresh and talented graduates, has been steadily set as an obsession for KPE. With such an ambition and in lights of company's efforts, KPE currently possess one of the industry's most qualified upstream teams comprised of prominent and elite experts in the business.

Moreover, converging and intermingling experience of oil industry veterans with up to date knowledge of young engineers is an strategic plans in KPE. Knowledge of geological structures and fields history is a valuable asset for any upstream consultancy firm which can boost the quality of services significantly. Therefore, prudence of experts with decades of field study and operational experiences in various Iranian fields, associated with the fresh energy of younger workforce, has given KPE assigned privilege and advantage to offer the clients with the high quality and agile services.

Nonetheless, human resources management has been always a key concern with KPE's team and efforts to invest and improve the pertinent systems are in progress.



Health, Safety, Environment



"Although KPE has around two decades of experience in the business, the accumulated working experience in the company, can be as of hundred years because of the presence of veteran oil industry experts."

Naeimeh Eshraghi
VP, Finance & HR

Health and safety of the staff as well as environmental considerations are of the prime importance in KPE's priority list during project execution. Being equipped with the latest managerial systems in this field and deploying a safety culture have been set as a priority in the company's executive plans, especially with the operational projects being founded in KPE's business portfolio. KPE's management team strongly believes in company's social responsibility and sustainable development and has steadily put efforts to implement them in the company's ongoing activities.

KPE's performance based on indices of the International Association of Oil & Gas Producers (IOGP); 2012-2017

Lost-Time Frequency Rate (LTFR)	0.4
Lost-time Severity Rate (LTSR)	7.9
Total Recordable Incident Rate (TRIR)	3.4
Fatal Accident Rate (FAR)	0
Ratio of Lost Working Days to the Number of Lost Working Day Cases (LWD/LWDC)	20



"Hitting a record of work without fatal accidents in operational projects including South Pars phases 20-21 and Azar acid fracturing project is among the KPE's HSE achievements, indicating the importance of safety culture in our business."

Seyed Mohammadreza Hosseini
Manager, HSE



Expertise and Services

Being a Trustful Partner in the E&P Chain



In overall, services rendered by KPE are divided into three main groups:

1) Exploration and Production Engineering and Consultancy

- Geosciences including geophysics, geochemistry, geomechanics, geology and petrophysics
- Reservoir engineering including basic engineering, reservoir simulation, designing and supervising laboratory tests and services
- Production and surface facilities engineering
- Comprehensive study of fields and preparation of Master Development Plan (MDP)
- Reservoir integrated management



2) Engineering and management of drilling and well completion operations and logistics services



3) Engineering and management of improved/enhanced oil recovery (IOR/EOR) operations

Given the knowledge-based nature of the activities, and in order to render services in compliance with global standards, KPE has steadily cooperated with companies possessing up-to-date knowledge and technology during its professional life, and has had strategic partnerships with some reputable international companies.

KPE has been certified as a first-ranked consultancy and engineering firm in the field of exploration and production by the formal grading system of Iran. Moreover, while maintaining upstream engineering as the core business, KPE is able to carry out all the project's integrated logistics operations by commissioning an operational/logistic base and employing required facilities and equipment in order to facilitate field development operations.



"Widening our scope of services in the upstream sector is not only aimed at diversifying the company business portfolio, but also a business strategy for optimizing the services being rendered to clients."

Amir Kamran Kiamehr
Manager, Strategy and
Organizational Development



Engineering and Consultancy Projects

Floating Deep into the Earth for Two Decades

Despite expansion of our business portfolio, our engineering and study capabilities would stay as KPE's major pivotal competence.

No	Project title	Client name	Year
1	Jufeyr oil field - Full field study and preparation of development plan	Oil Industries Engineering and Construction (OIEC)	2018
2	Sepehr oil field - Full field study and preparation of development plan	Oil Industries Engineering and Construction (OIEC)	2017
3	Mansouri oil field - Preparation of development plan	Petro Tadbir Pars Engineering	2017
4	Yaran oil field – Full field study and preparation of development plan	Persia Oil & Gas Industry Development	2017
5	Petroleum engineering and geosciences technical assistance services	Iranian Offshore Oil Company (IOOC)	2017 - ongoing
6	Salman oil field - Full field study and preparation of development plan	Iranian Offshore Oil Company (IOOC)	2012-2015
7	Azar oil field – Full field study and engineering services	Sarvak Azar Engineering & Development Company (SAED)	2013 - ongoing
8	Kish gas field – Development consultation and supervision services	Petroleum Engineering & Development (PEDEC)	2012 - ongoing
9	Towsan and Alpha oil fields – Subsurface engineering and consulting services	Petro Pardazan Pooya Energy development (PEDCO)	2012-2013
10	Cheshmeh Khosh-Bangestan oil field - Preparation of development plan	Arya Oil and Gas Development Company	2010-2011
11	Yadavaran oil field – Subsurface and surface consulting and supervision	Petroleum Engineering & Development Company (PEDEC)	2009-2017



"Comprehensive field studies and preparations of development plans for over 20 Iranian oil and gas fields have led to full proficiency of our experts with in Iranian reservoirs and their geological complexities."

Masoud Fahiminia
Manager, Geosciences

12	Comprehensive research program for applying in layer- fracturing in Iran's hydrocarbon reservoirs through EOR method	NIOC Research & Technology Directorate	2009-2011
13	South Pars gas field – Full field study	Pars Oil & Gas Company (POGC)	2008-2010
14	Aghar, Dalan and Tange-bijar fields - Full field study	Iranian Central Oil Fields Company (ICOFC)	2006-2009
15	Mansouri oil field - Full field study and preparation of development plan	Petroleum Engineering & Development Company (PEDEC)	2005-2006
16	Aghajari oil field - Full field study	National Iranian South Oil Company (NISOC)	2005-2007
17	Resalat oil field (Shuaiba, Misharif, Arab B and Arab C) - Full field study	Iranian Offshore Oil Company (IOOC)	2003-2005
18	Kuh-e-Kaki oil field - 2D seismic	Oil & Energy Industries Development (OEID)	2002-2003
19	Rag sefid oil field - Full field study and preparation of development plan	Petroleum Engineering & Development Company (PEDEC)	2001-2004
20	Karanj oil field - Full field study and preparation of development plan	Petroleum Engineering & Development Company (PEDEC)	2001-2004
21	Tabnak gas field - Full field study and preparation of development plan	Petroleum Engineering & Development Company (PEDEC)	2001-2002
22	Shah Deniz gas field - Economical studies	Oil Industries Engineering and Construction (OIEC)	2000-2002



South Pars development projects of phases 20 & 21



Azar Oil Field Acid Fracturing Project

Experience of integrating studies and operation

The project has been the window through which we have entered operational and executive activities in field development projects.

South Pars gas field located in the Persian Gulf is known as the world's largest independent gas field. Oil Industries' Engineering and Construction (OIEC) has been responsible for development of phases 20 and 21 of the field, aimed at producing 50 MCM/d of gas and 80,000 bpd of condensates. Given the necessity of integrated steering and importance of efficient technical management of the project, in 2010, OIEC awarded KPE with the rendering services included petroleum engineering, geological studies, engineering and operation of drilling, and completion of 22 production and delineation wells, in which KPE accomplished the project successfully.

- **Client:**
Oil Industries' Engineering and Construction (OIEC)
- **Scope of work:**
 - Upstream engineering including geological studies, petroleum and drilling engineering
 - Drilling operation supervision and management
 - Rendering integrated logistics services



"KPE is the first subsurface consultancy firm in Iran which has been fully engaged during the development execution stage of a field after being solely responsible to conduct the full field studies and prepare the MDP for the same field."

Masoud Kalari
Senior Advisor, Petroleum Engineering



"Engineering and management of drilling and logistics operations in 22 offshore wells according to the time plan, is a significant achievement in the company's operational records."

Mansour Taheri
Manager, Drilling and Well Completion

Toward Benefitting from IOR / EOR Technologies

Acid fracturing technology as an improved oil recovery method, has been utilized by KPE in Azar oil field for the first time in this scale.

Azar oil field is located in Ilam province in the west of Iran on Iran-Iraq borderline. This common oil field is being developed under a buyback contract whose scope of work includes drilling of 19 wells, and construction of relevant surface facilities. According to the plan, the field is to produce 30,000 bpd in the early production phase, and finally 65,000 bpd. In order to materialize this production target, implementation of acid fracturing operation is foreseen to be carried out in upper and lower Sarvak formation. The project which included design, procurement, rig provision, and implementation of acid fracturing operation was started by KPE as the contractor in 2015 and completed in 2016.

○ **Client:** Sarvak Azar Engineering and Development (SAED)

○ **Scope of work:**

- Liner, liner hanger and completion string running operation
- Providing and rendering well test services, perforation, well logging, etc.
- Designing and engineering of acid fracturing operation including geomechanics, reservoir engineering, production, and material engineering
- Managing acid fracturing operation in cooperation with subcontractors
- Analyzing results during and after acid fracturing operation

In addition to acid fracturing project, KPE is responsible for carrying out Azar oil field comprehensive studies as follows:

- Comprehensive study of the field
- Updating the field's studies based on 3D seismic data and data obtained from drilling and well tests
- Assessing Enhanced Oil Recovery(EOR) and Improved Oil Recovery (IOR) techniques
- Production monitoring
- Reservoir surveillance



"All the bottlenecks and executive challenges of the project have made us enter modern technologies arena and pioneer in gaining acid fracturing know-how in Iran."

Ali Yazdani
VP, Technical and Engineering

Shareholder

Self-Sufficient but Aligned with the Mother Company

Being supported and guided by a reputable and professional mother company, as well as enjoying synergies with other member companies of OIEC group is one of our advantages.

KPE is one of the subsidiaries of OIEC group and hundred percent of its shares is owned by OIEC, which is considered as one of the leading companies in execution of oil and gas mega-projects both in Iran's upstream and downstream. The five subsidiaries of OIEC cover different parts of the industry's value chain. Having three decades of experience in Iran petroleum industry, OIEC has been involved in designing and constructing many refineries, petrochemical complexes, processing units and surface facilities, as well as development of some oil and gas fields in the country. The latest project fully implemented by the company is the development of phases of 20 and 21 of South Pars gas field including both offshore and onshore refinery with a value over \$5 billion. While having an independent business and organization, KPE functions as an upstream expertise arm of OIEC group as well.



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Two Decades of Exprience in the Oil and Gas Industry

E&P Engineering and Consultancy

Engineering and Management of Drilling, Well Completion and Logistics

IDR/EOR Engineering and Operation



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