

COMPANY PROFILE 2020



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Who we are?

The "Buyback Service Contract" for Development of Azar Oil Field was signed between National Iranian Oil Company (NIOC), a Consortium consisting of Ahdaf company and Oil Industries' Engineering and Construction (OIEC) on 18th March 2012.

Subsequently, with NIOC approval, execution of the Contract was assigned to newly established company, Sarvak Azar Engineering and Development (SAED) on 09th July 2012.

The company's objectives are implementation/execution of project within defined time schedule and budget as per Master Development Plan (MDP) and achieving 65,000 BOPD of oil production.





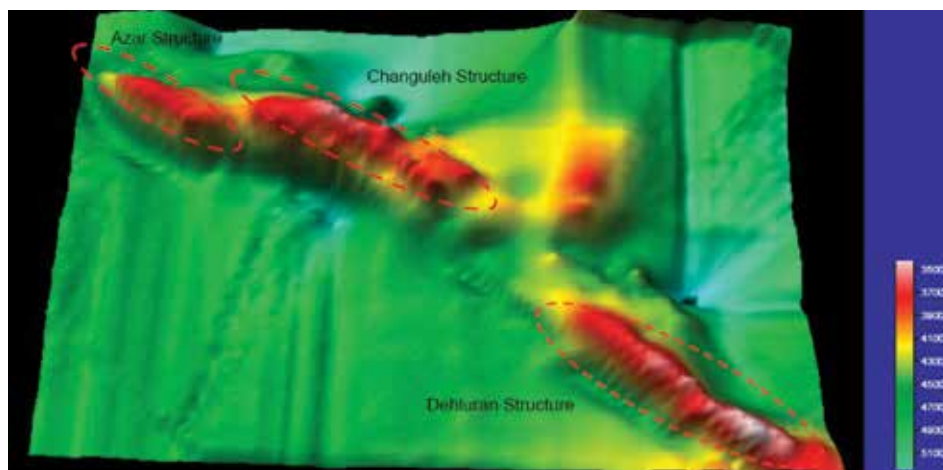
SAED's Goals

Success of the company in meeting the outlined objectives, will be guaranteed by our determined and persistence pace which we've started to achieve in the time period of 2013 to 2014.

Through this period, we have strived to achieve our goal through assigning wide range of projects in design , procurement, and construction in both EPC and EPD forms by allocating the projects to our professional and reliable manufactures, consultants, and subcontractors.

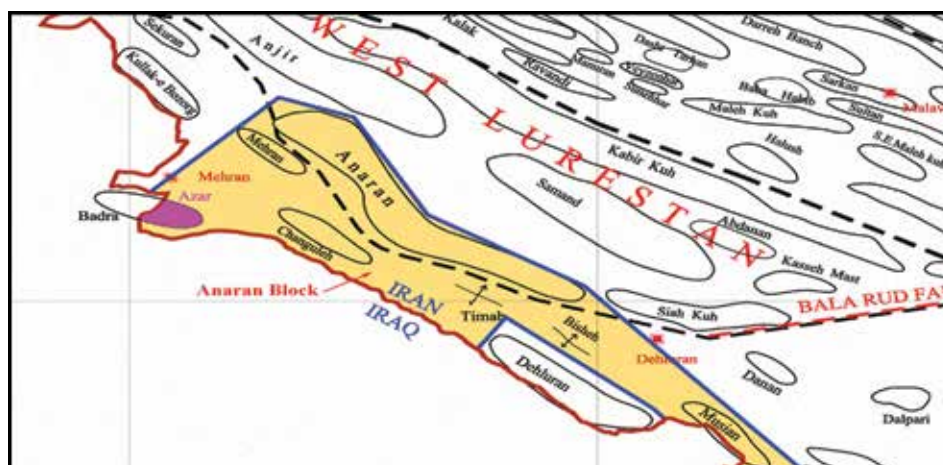
All things considered, the course ahead is by no means smooth but our determination to achieve the main objectives is unwavering and includes the following aspects:

- Development of Azar Common Oil Field and compilation of Enhanced Oil Recovery (EOR) program.
- Project execution within proposed Schedule and Budget.
- Emphasizing on Health, Safety and Environment (HSE) regulations, with maximum utilization of Iranian (Local Content) technical, engineering and manufacturing capabilities.



Where is Azar?

Azar structure is an irregular anticline located in Anaran exploration block in Ilam Province (south-west Iran, 25 kilometers from the city of Mehran), along the Iran/Iraq border. Extending in northwest/southeast direction, the total length of the field is more than 36.5 kilometers (including the extension in Iraq) of which approximately 13.5 kilometers is located in the Iranian side of the border. The width of the structure is about 30 kilometers. Drilling of the first exploration well initiated in 2003 but due to drilling technical reasons failed to achieve target and was abandoned in 2004. The Second exploration well named AZR-002 was drilled and completed over Sarvak reservoir formation in 2005, and proved presence of economical/recoverable oil in this field. The total area of the field in Ilam formation is about 400 square kilometers. Based on comprehensive reservoir/geology studies, this field contains 4.7 (Developed + Undeveloped Resources) billion barrels of light oil in place (API 32). The estimated volume of recoverable oil from Azar Oil Field is 400 million barrels.





What we do?

Main project objectives is Construction of surface Facility and drilling required new wells for production of 65,000 oil and 78 MMSCFD Gas in two stages, with maximum oil recovery from Sarvak formation.

The development plan will be implemented in two stages. In the first stage (Early Production Stage), it is planned to construct minimum surface facilities to produce 30,000 barrels of oil per day (BOPD). In the second stage (Final Production Stage), an incremental oil production of 35,000 BOPD is planned to reach the final production rate that will be 65,000 BOPD. The facilities under construction in the two stages are:

Stage 1 (Early Production Stage):

- Drilling 8 producer wells.
- Construction of approximately 130 kilometers, 16 inch diameter, export pipeline for transporting oil to Dehluran Production Unit.
- Construction of modified early production system for produced crude oil stabilization and separation of the associated sour gas.



**Stage 2 (Final Production):**

- Drilling 10 new producing wells.
- Work-over of existing well AZR- 002 and convert it to oil producer.
- Drilling 1 appraisal well and completing it as a producer well (if possible).
- Construction of a production unit (Central Processing Facility-CPF) with 71,500 BOPD capacity and gas handling capacity of 78 MMSCFD (billion standard cubic feet per day).
- Construction of 63 kilometers extension of the 16 inch oil export pipeline from Dehluran to the junction of an existing main oil export pipeline at Cheshmeh Khosh.
- Construction of approximately 130 kilometers, 16 inch diameter pipeline for transporting produced sour gas to Dehluran.



Key Strategies

- Accurately reporting and systematic recording all plan activities to avoid any claims caused loss of goals
- Communication development in the labor-market to identify and recruit experienced professionals and technicians
- Maintain skilled employees by competitive payment, appropriate leadership and motivating tasks
- Broaden financial resources to safeguard an appropriate cash flow and achieve suitable financial productivity
- Developing senior management with the best Iranian and overseas industrial management skills
- Grant the contractors freedom to innovate and perform best within the framework of project scope
- Utilization of social capital to reach the best within the project scope
- Development of an infrastructure including Management System for a durable Organization
- Utilization of the services of a Third Party Agent (TPA) to enhance the accuracy and the veracity of Health, Safety and Environment quality monitoring systems (HSEQ).

Vision

One of The most original contractors of the oil fields development in Iran and the region

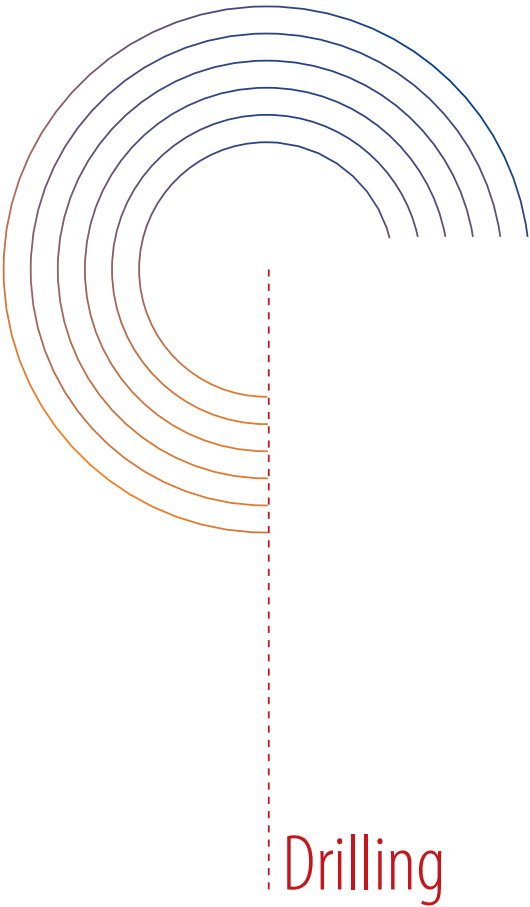
Mission Statement

To maximize country's value by developing and operating Oil and Gas facilities to the extent of international standard levels through innovation, efficiency and development of local talents.

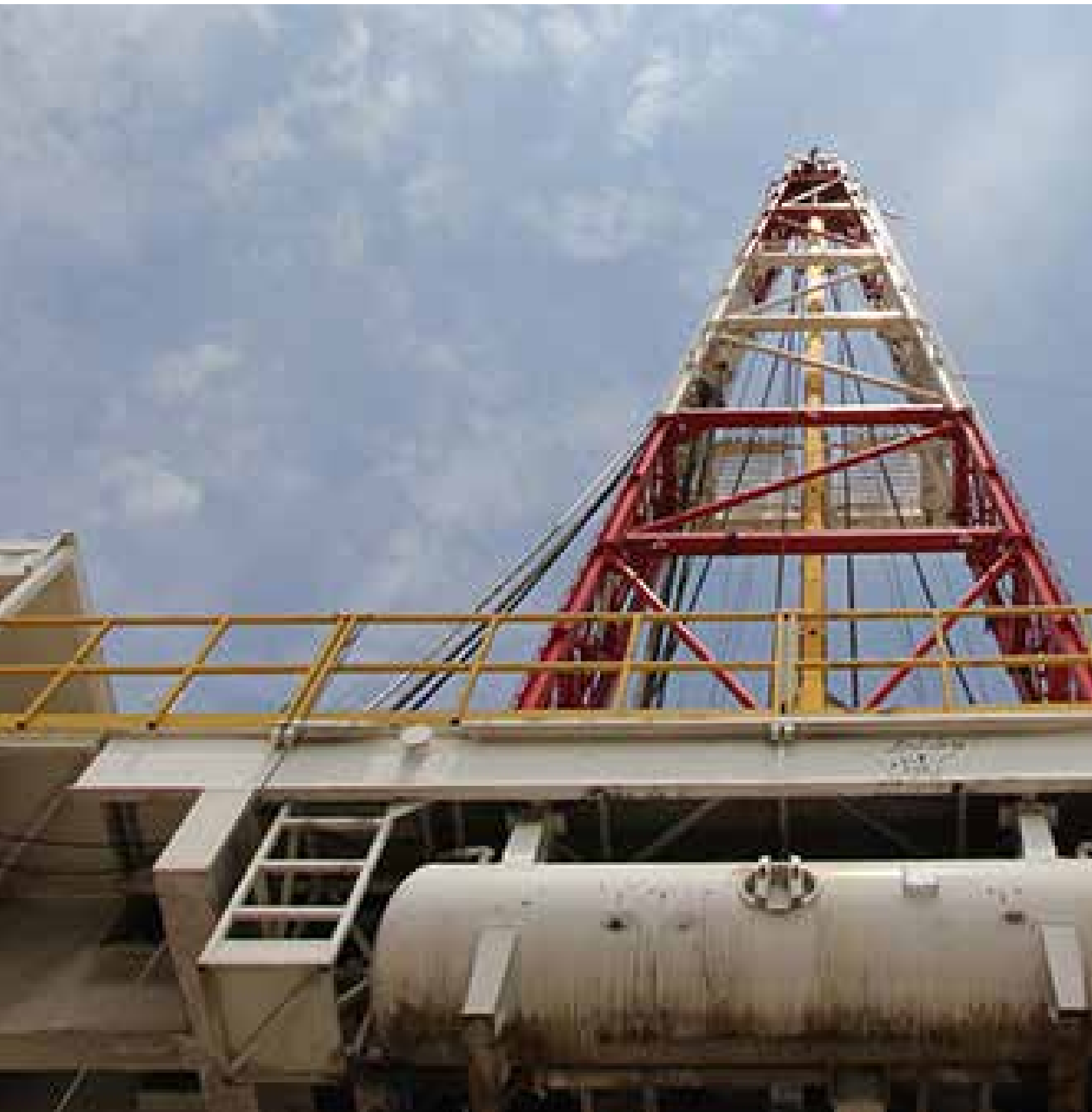
Corporate Values

- Shareholders' Interests
- Iranian technological potential
- Conflicts Management
- Accuracy and Veracity
- Satisfaction of stakeholders
- Resistive Economy
- Personnel satisfaction
- Employment Opportunity creation







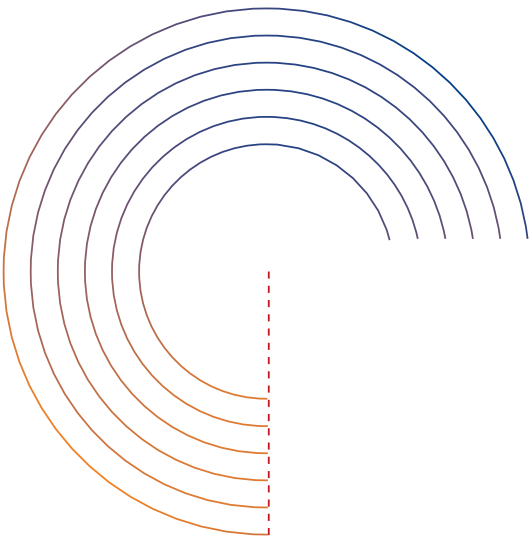


Drilling

As per Azar Oil Field Master Development Plan, 19 production wells and one water disposal well has been drilled to the depth of 4,700 meters in Sarvak/ Asmari formation and existing well (AZR- 002) has been worked-over as producer well. Above drilling scope has been performed by local company as EPDS contract.

Azar Oil Field is one of the most complicated and challenging drilling operation in the region, necessitating most accurate engineering and operational computations. Difficulties in casing design influenced by differences in formation pressure regimes, necessity of using heavy drilling fluid (83-148 pcf) with intermittent low and high pressure zones, heavy casing strings (almost equal to rig capacity), long open hole intervals, high H₂S content and unexploded mines remaining from battle filed are the most problems in the Azar field.





High Volume Acidizing

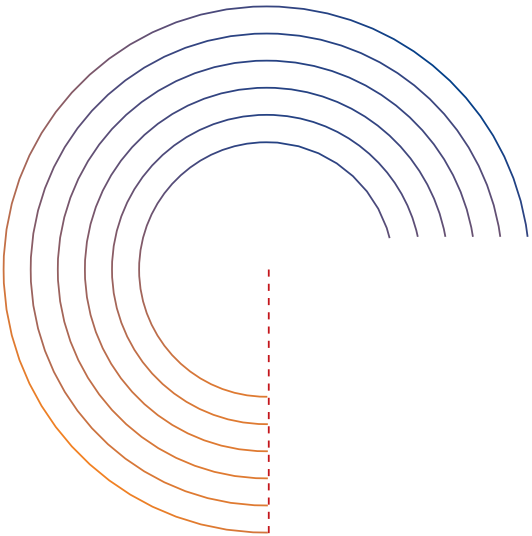




High Volume Acidizing (Commingled & Multi-Stage Selective)

High volume acidizing is a technique where acid is injected to formation below fracturing pressure to remove formation skins and increase the connectivity of reservoir and wellbore. In order to effectively increase the productivity index of the wells, SAED has conducted both Commingled and Selective High Volume Acidizing in Azar Oil Field wells. In commingled acidizing operations of Azar Oil Field chemical diverters such as VDA (Visco-elastic Diverting Acid) is used to direct acid to low permeable zones. But in selective acidizing operations, inflatable retrievable or drillable bridge plug which can isolate particular sections of formation zones are being used. The results of high volume acid stimulations illustrate enhancement in productivity index of the wells and total production of Azar Oil Field.





Wellhead Facilities and Flowlines



Wellhead Facilities and Flowlines

The project shall be implemented in two Early and Final Production stages. There are 20 wells in total, including 8 wells for the early production and 11 additional wells plus water disposal well for the final production.

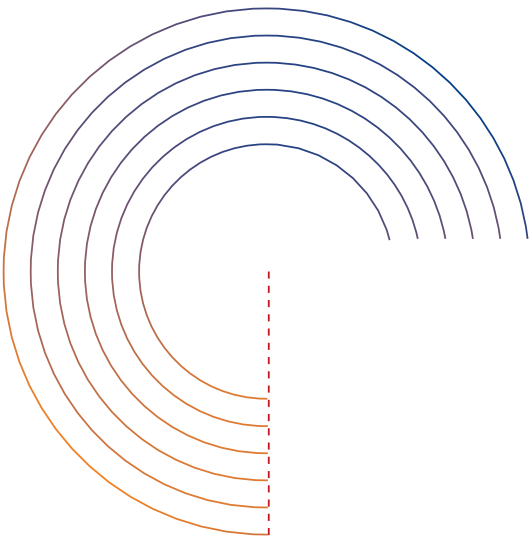
The project consists of a main Engineering, Procurement and Construction (EPC) contract and other activities required for transportation of crude oil produced from each well to the Gathering Manifold located at the inlet of Central Process Facilities (CPF).

These activities include construction of well locations (well pad) for drilling rigs, laying of flowlines and Fiber optic cables along these flowlines, electric power transmission lines and wellhead facilities (i.e. burn pits, access roads, portakabins which house the Wellhead Control Panels (WHCP), Remote Terminal Units (RTU) for Supervisory Control and Data Acquisition (SCADA) and High Integrity Pressure Protection System (HIPPS) and etc.)

The EPC contractor for this part is a company called Iran Gas and Water Development Company (IGWDC).







Central Processing Facilities





Central Processing Facilities

The project scope of work includes all Engineering, Procurement, Construction, Startup and other services required for final production of 65,000 BOPD in normal operation.

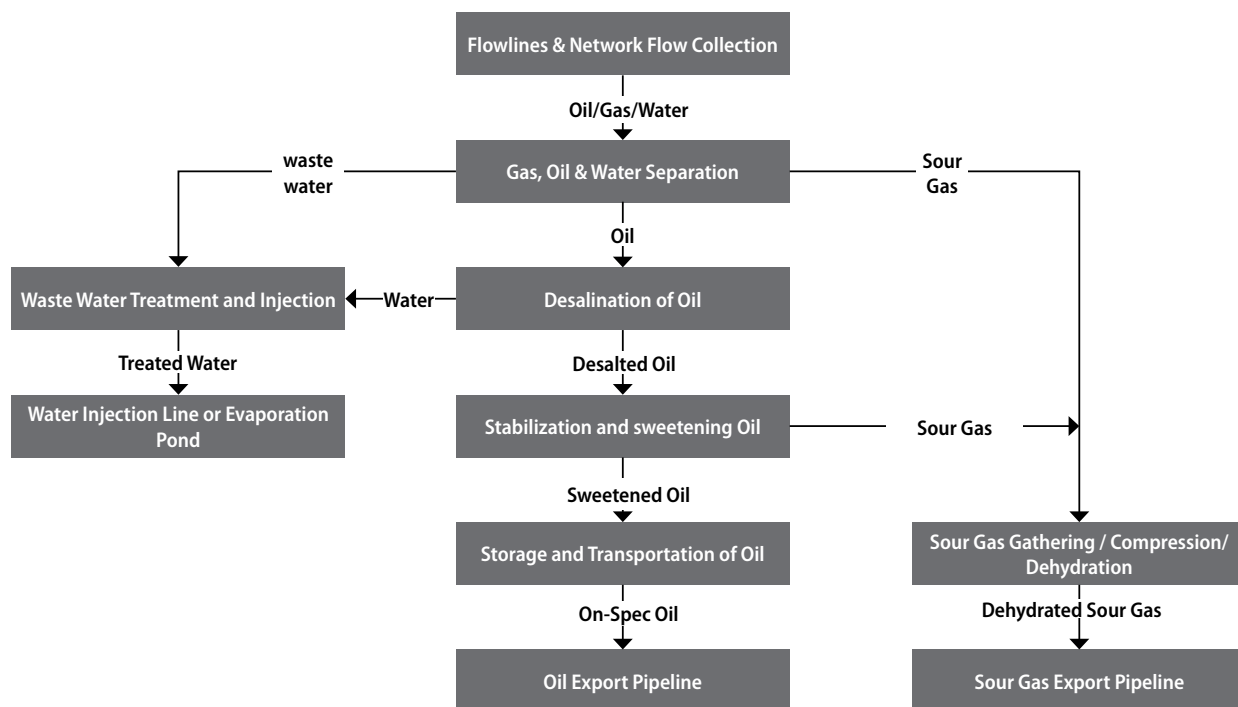
The crude oil produced from 19 production wells, gathered in the inlet Common Manifold, is directed through two separate headers to the respective production trains. The fluid is passed through two stages of three-phase separators to remove the associated sour gas and produced-water, followed by a desalting unit and a hot stripping desulfurization tower to remove water and H₂S respectively. Then the stabilized oil is cooled in air cooler and directed through a common header to an on-spec storage tank. Three booster and main pumps are utilized to transport the stored crude oil, via a dedicated oil pipeline, to Cheshmeh Khosh production facilities.

The produced gas from separators is first directed to the gas compression area consist of three gas compressor stages and then, is routed to TEG dehydration package for water removal. Dehydrated gas will be compressed further in export compressors and via a dedicated gas pipeline, is routed to Dehluran facilities for ultimate delivery to NGL-3100 complex.

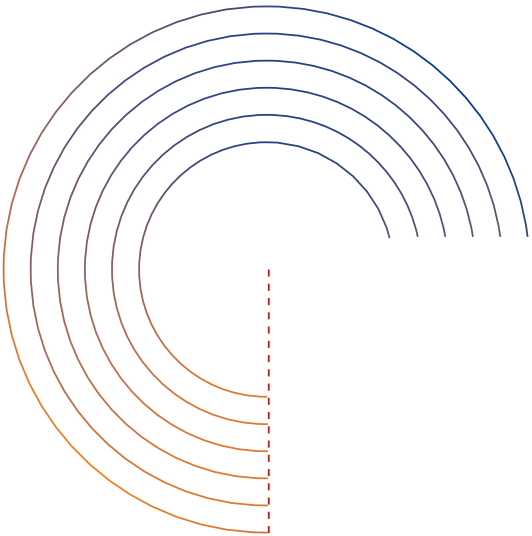
Normally, CPF shall handle 65,000 barrels of oil per day (BOPD), but it is designed for processing 71,500 BOPD, 78 MMscfd gas and treating 23,000 barrels per day of effluent water for re-injection back into the reservoir.



Process Flow Diagram of CPF







Modified Early Production System



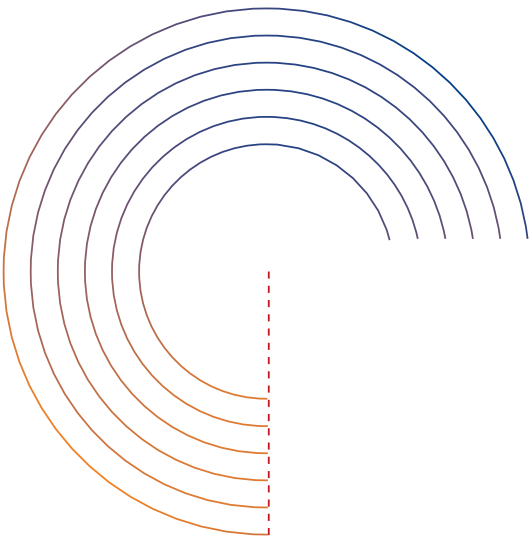


Modified Early Production System

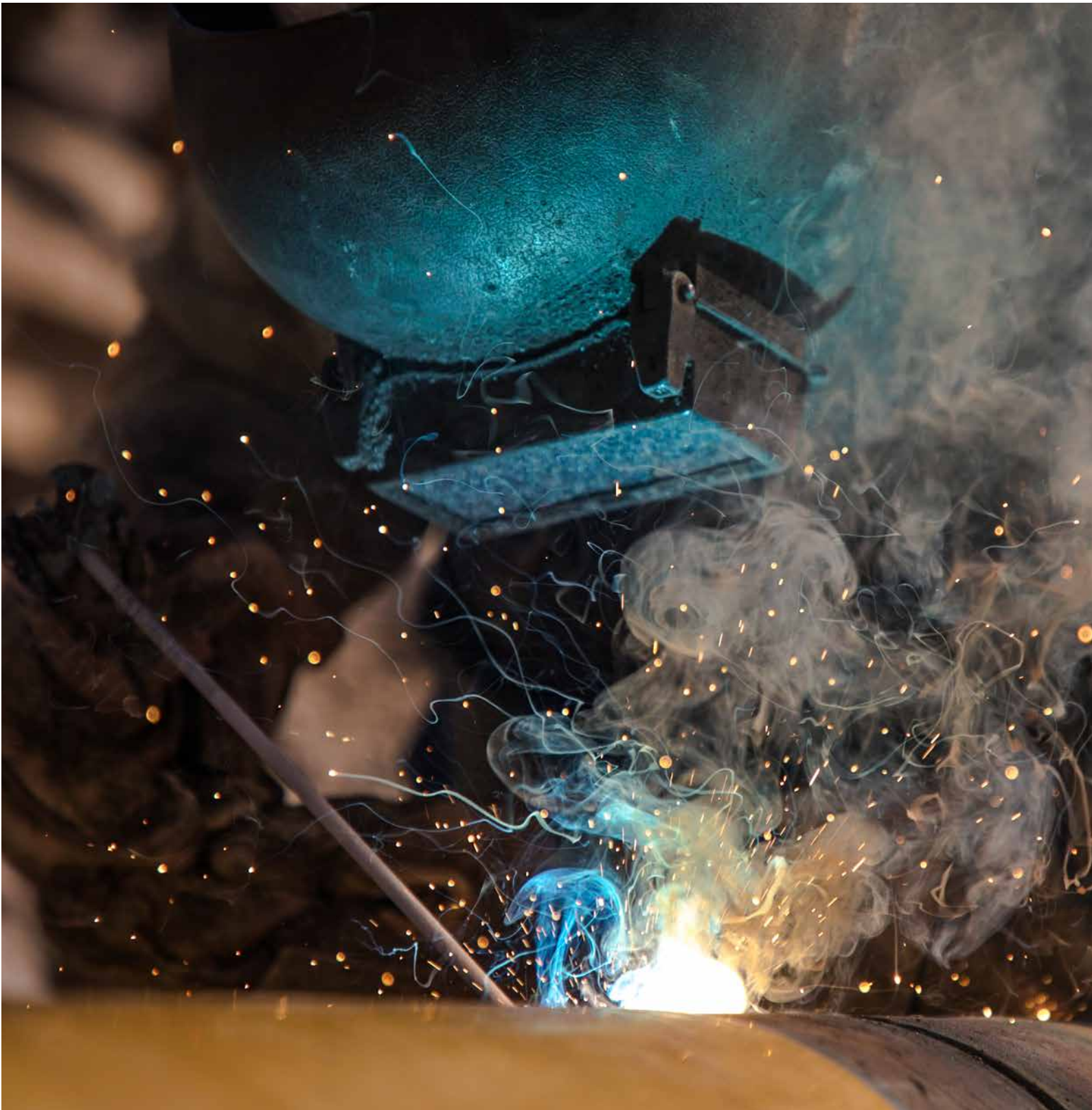
Early production system is a fast-track schedule for establishment of minimum facilities before installation of more-expensive long-term facilities in order to achieve oil production from Azar Oil Field in the shortest possible time. SAED Company is responsible for design, construction, installation, commissioning and operation of aforementioned facilities. MEPS unit receives the crude oil with taking connection from flowlines and delivers the processed oil within tie-in point to export pipeline toward Dehluran facilities.

Early production system is a temporary production facility which is also ideal as the small reserve for permanent production facilities.





Oil and Gas Export Pipelines



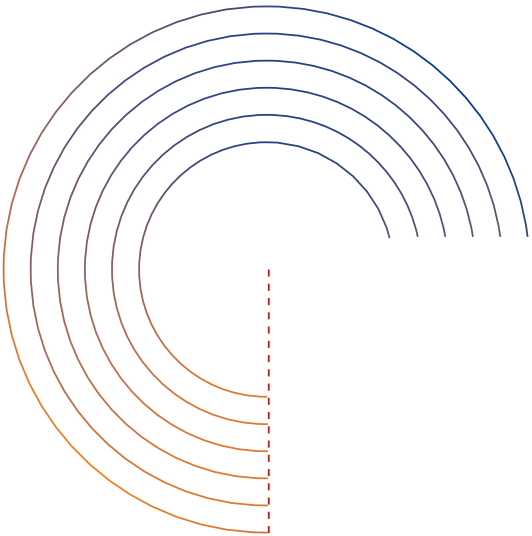




Oil and Gas Export Pipelines

The Project shall be implemented in two early and final production stages. The project consist of a main engineering, procurement and construction (EPC) including all related activities for transportation of crude sour oil, crude sweet oil and sour gas from Central Process Facilities (CPF) to Dehluran and Cheshme Khosh production stations.

These activities include the construction of approximately 200 KM right of way (ROW), construction of 130 KM 16" sour oil pipeline, 130 KM 16" sour gas seamless pipeline and 63 KM 16" sweet oil pipeline, crossings include roads and rivers, Line Break Valve Stations (LBV's), Pig Launchers and Receivers, Cathodic Protection Stations (CPS) and their electric supply lines, Fiber Optic Cable along the pipeline, Supervisory and Data Acquisition System (SCADA), Remote Terminal Unit (RTU), CCW & HTD.



Electrical Power Supply Substation



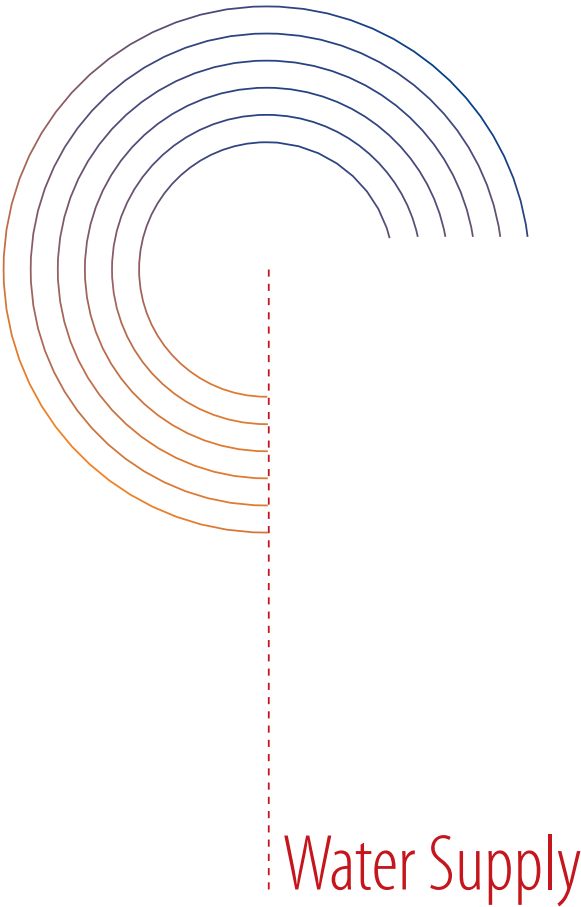




Electrical Power Supply Substation

The project includes construction of a 132/11 KV electrical power supply substation to supply the required electrical power consumption for Azar Oil Field.





Water Supply





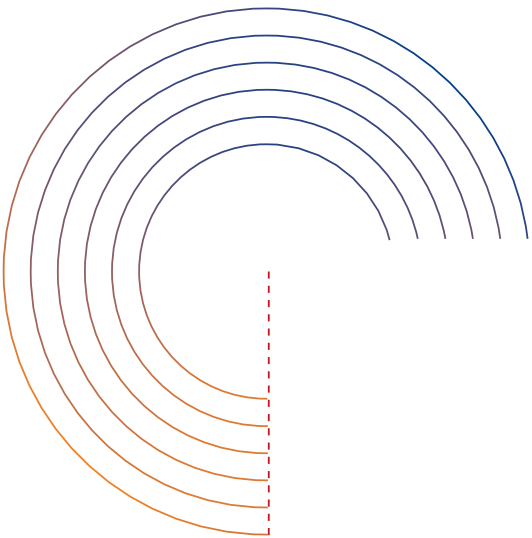


Water Supply

The project includes engineering, procurement, construction and operating of water pump station and underground PE/GRVE water line for transferring raw water from Changuleh River to Central Processing Facilities (CPF) and Operation Permanent Residential Facilities (OPRF) of Azar Oil Field.

The project includes construction of Water Intake and Pump Station in Changuleh river area, construction of 28.5 km ROW, installation of Glass Reinforced Vinyl Ester (GRVE) water pipeline, construction of raw water storage basin near CPF and raw water storage basin in Well area to transfer raw water to CPF via 11 km polyethylene pipeline.





Operators' Permanent Residential Facilities

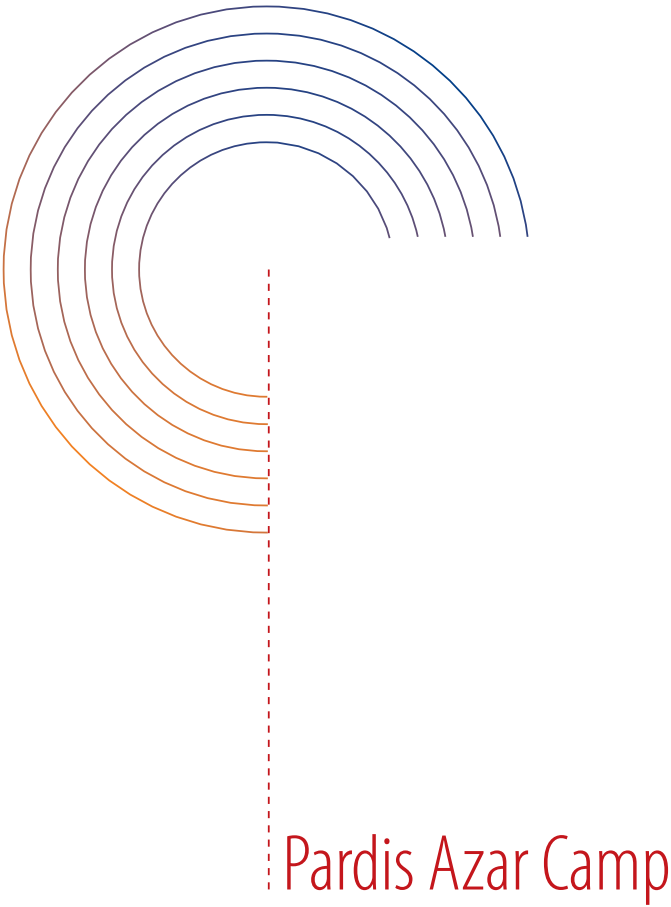






Operators' Permanent Residential Facilities

The project includes construction of a permanent residential facility for Azar Oil Field operators consisting of the residential buildings, recreational and entertainment buildings and sports and services which will accommodate 220 people.



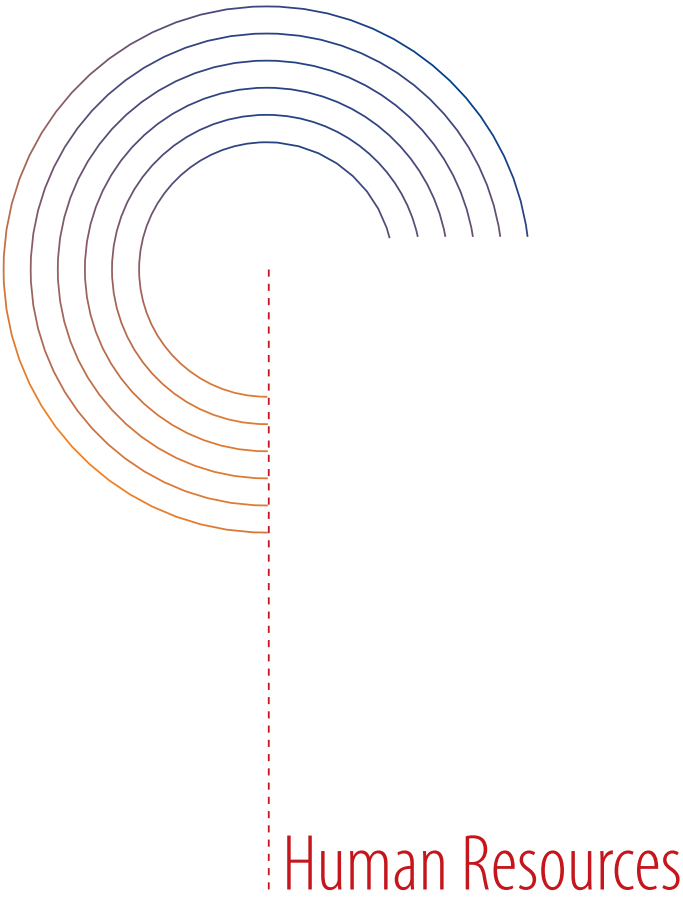




Pardis Azar Camp

To provide maximum safety and welfare for NIOC and SAED personnel working in Site during the construction of Azar Oil Field Facilities, it was deemed necessary to construct an exclusive temporary residential camp. Constructed in ten months on a 3.5 hectare piece of land, "Pardis" residential complex including sports and recreational amenities were opened in April 2015 and may house 270 occupants.









Human Resources

Human Resources Management is committed to adapt policies aimed at continued functioning of qualified and motivated experts during the required period of time so that the achievement of Development Objectives is assured.

For training and human resources development, a Competence Model designed by local specialists (specifically for SAED) has been utilized from the commencement of Project Activities. The objective is to promote personnel's Behavioral and Functional Competency so that a harmonious progress, at all levels, towards achievement of Project Objective is encouraged. The approach to the design and implementation of Compensation Management is to aid the organization to promote personnel motivation on the one hand and to facilitate recruitment of expert workforce in various disciplines, considering the competitive nature of labor market, on the other. SAED Incentive Management is another instrument for supporting and enhancing the productivity of invaluable human resources.



National Iranian Oil Industry
Champions Award



Human Resources
Excellence Award



United Nations/GICHD
Certificate in Mine Action
Switzerland, Geneva 2015

Integrated Management System Certification:



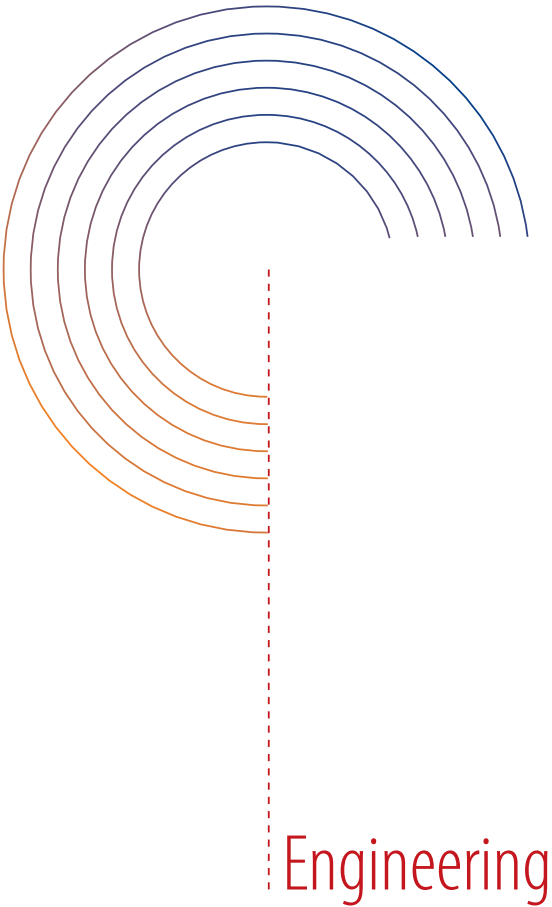
Occupational Health & Safety
Management System
OHSAS 18001



Quality Management System
ISO 9001



Environmental Management System
ISO 14001





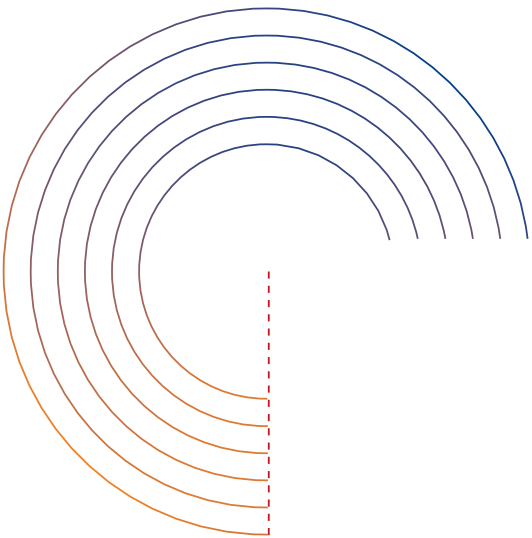


Engineering

The SAED's engineering services includes: Basic Design, FEED & Detail Design engineering as well as construction and installation engineering for SAED's EPC & EPD projects in the fields of Azar Oil Field Development. This department has a wide range of engineering services achieved through collation and analysis of various data including lessons learnt and optimizing engineering activities.

Our company has a comprehensive database of project knowledge, works and activities and complies with the latest international standards and Iranian Petroleum Standard and uses internationally-recognized specialized softwares as well as in-house development packages.





Health, Safety and Environment





Health, Safety and Environment

Health, Safety and Environmental (HSE) Management is an integral and essential part of the way we do our operations and is considered an equal part of the wider system for the management of our activities.

That's why we've standardized the way we identify, quantify and review risks and manage them. We've implemented initiatives aimed at improving

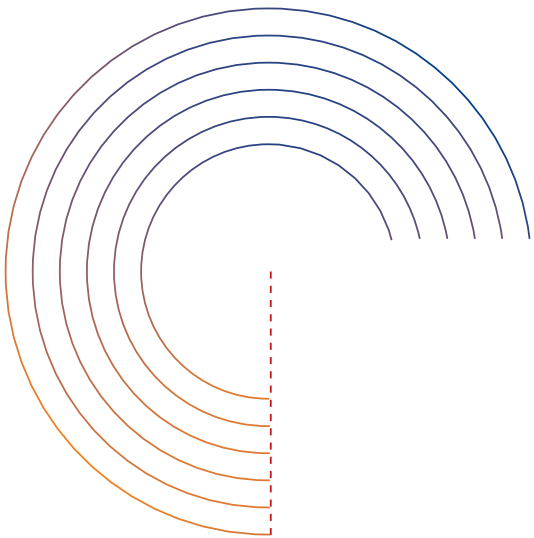


process safety across our business and we work hard to reduce our overall risks. We have health programs to benefit our workforce and a health strategy that fosters a culture of health and personal wellbeing, so improving productivity. Implementing all these commitments calls for health and safety professionals at all levels.

We learn through the challenges we constantly face and explore new ways to improve our design, operations and processes.

By focusing on developing engineering and control systems that reduce hazards and support compliance, capability and performance, we look to ensure all our people are safe and secure in the environment they work in. SAED Co. relays on comprehensive knowledge of HSE experts, in fields like drilling, construction, operation, EOD (explosive ordnance disposal), firefighting, environment, road safety and training.

Among the honors of the company in this regard, can mention the successful implementation of Integrated Management System (IMS) and record of more than 71 million man-hours until 21th November 2020 without an accident resulting in death or permanent disability.



Quality Control and Quality Assurance



Quality Control and Quality Assurance

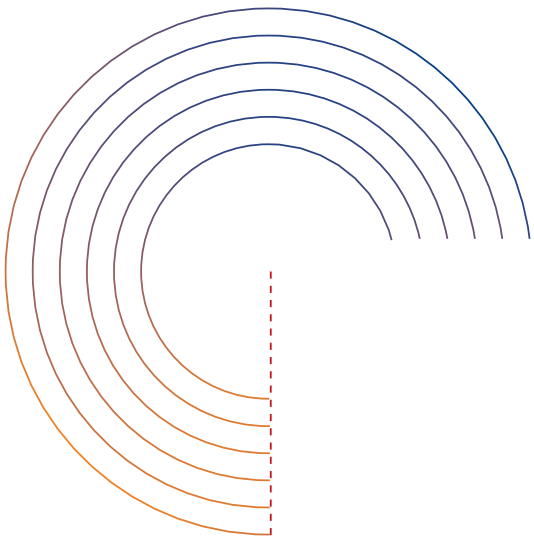
SAED, together with the cooperation of all employees according to predetermined policy and strategies, with trainings in or out of the company and providing the most effective internal communication processes, provides necessary conditions for professional working environment which is accomplished by process control, quality control, process occurrence time, customer satisfaction, process cost and in due time delivery indicators. Performances of our employees and processes are evaluated in regular periods.

Quality Control Department has implemented a Quality Control Management System and defined the Quality Action Plan modeled on the national and international normative references. All monitoring and Quality Control of both procurement and site supervision are carried out utilizing Quality Control guidelines and after preparation of detailed procedures. Thereafter, QC records are appropriately archived in Quality Assurance Document Control Center (QA-DCC).

Qualified QC personnel and technical inspection teams have been recruited to enhance Quality Control effectiveness.

It is expected that the implementation of the Quality Control Management System shall lead to risk minimization and lowering of probable failures in future operation, hence to considerable reduction of overhaul and maintenance cost.





Demining & Unexploded Ordnance Clearance



Demining & Unexploded Ordnance Clearance

Azar Oil Field is located within Zero Point of the Border zone of Mehran City in Ilam province. During the Iran-Iraq war (1980-1988) this region witnessed great battles so large areas are contaminated with land mines and unexploded ordnances. To avoid accidental explosions and as per SAED policies, all personnel must participate in a “mine and UXO danger awareness” training course entitled Mine Risk Education (MRE) before beginning work at the Site.

To date, about 4,000 man/hours mine and UXO danger awareness training courses (MRE) have been presented for the personnel and the guests visiting Azar Oil Field complex.

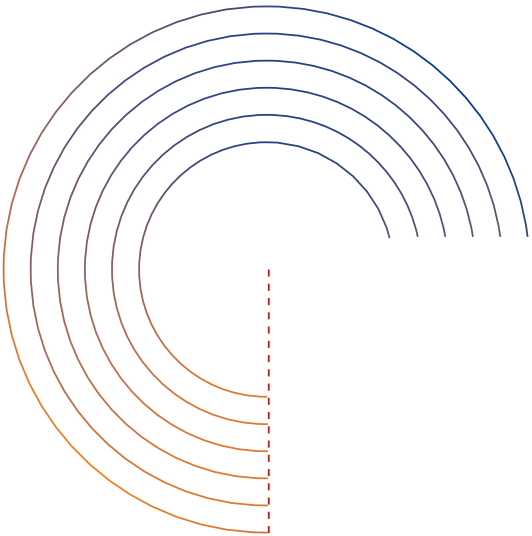
In line with the humanitarian goals of the company, more than 1,000 man-hours mine and UXO danger awareness training courses (MRE) have been





presented for the indigenous nomads and neighboring districts' students. Additionally, at the request of State Welfare Organization (SWO) and Iranian Red Crescent Society (IRCS), company experts presented approximately 1,200 hours training for about 600 Educators of these organizations. Thus, the name "SAED" was registered as the first oil company in the world active in "humanitarian de-mining" by Geneva International Center for Humanitarian De-mining (GICHD) in Switzerland.





Pictorial Documentary







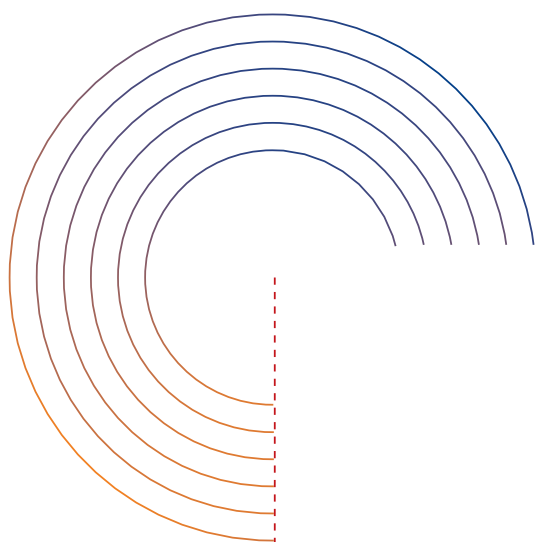
Pictorial Documentary

Pictorial documentary is a chronological audio-visual recording of project activities from inception to completion. It provides a readily available insight into the lessons learnt and shall be a useful learning tool for future generations. In addition, at various stages of Development Operation, informative video clips are prepared for media announcements and public exhibitions.

An important aspect of pictorial documentary is faithful exposition of unexpected complications encountered during the course of project execution and resolution methodology adapted which may prove to be beneficial under similar circumstances in future projects.

There are pole mounted monitor cameras in strategic locations at site which shall be used to compile time lapsed project progress. Professional cameramen take close up pictures and movies of important details deemed important by technical supervisors.





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