

NARGAN-AMITIS
Energy Development

NARGAN AMITIS ENERGY DEVELOPMENT

NARGAN Legacy Elaborated to New Domains



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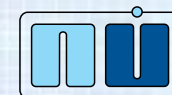
Who We Are

NARGAN, established in 1973, has been one of the leading oil and gas service companies in Middle East with well-developed managerial and organizational infrastructures. NARGAN benefits from its organizational and infrastructural resources as well as technical expertise and knowledge brought up by its members to deliver subsurface and surface engineering consultancy services.

NARGAN with its own visions and values, works in an integrated manner to deliver an integrated service to Oil and Gas Market of Iran (ranging from front-end services to field development).

NARGAN's current focus is on delivering leading-edge Oil & Gas Engineering Technology Solutions to meet the requirements of the exploration and production projects.

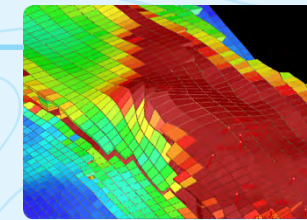
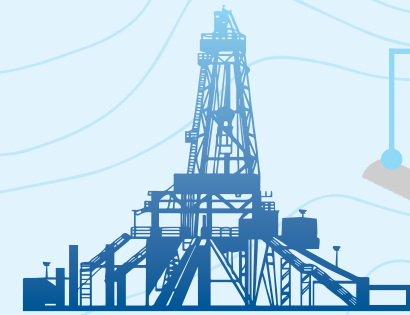
NARGAN-AMITIS Energy Development (NAED) is registered in 2016 as an affiliate of Nargan acting as its oil and gas upstream services branch. NAED with its own visions and values works in an integrated manner with NARGAN to deliver an integrated E&P Consulting Solution Services to the Iranian's Exploration and Production projects (ranging from Front-end services to Field Development).



Over Four Decades Experience
in Oil, Gas, Petrochemical & Refinery Industries

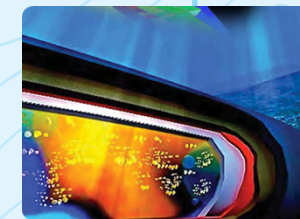
Business Scope

Within Nargan family, we can cover the whole value chain from Pore to Process. We deliver integrated field solutions ranging from exploration to production, field development, IOR/EOR studies, midstream transportation lines and finally ending in downstream refinery and petrochemical plants.



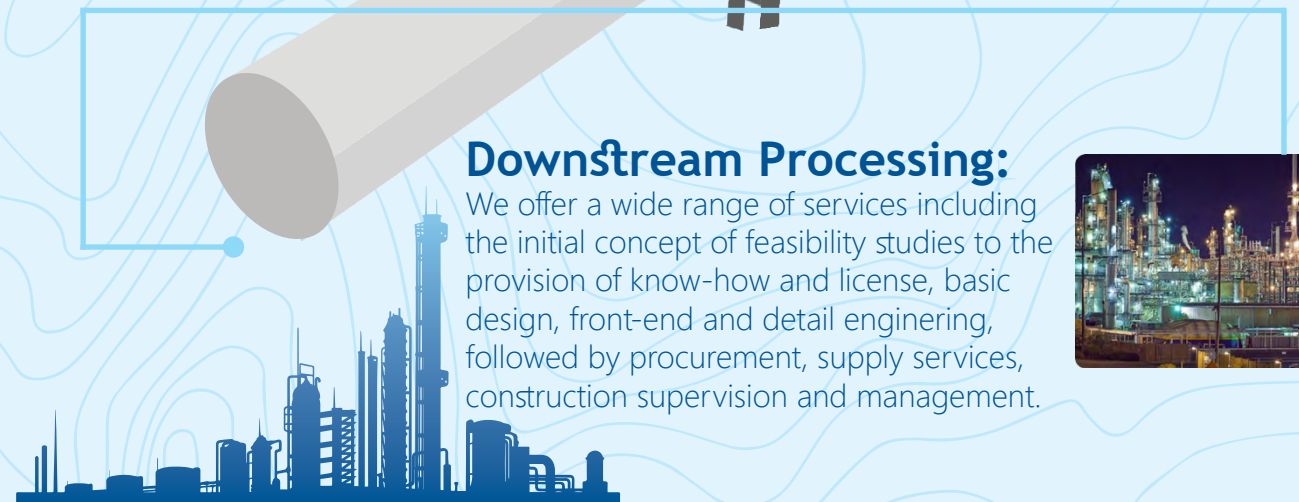
Pore to Process:

Integrated field solutions ranging from exploration to production, including field development plan, and IOR/EOR studies.



Transportation:

Innovative solutions for Iran's oil and gas transportation as well as treatment from production plants to distribution points.



Downstream Processing:

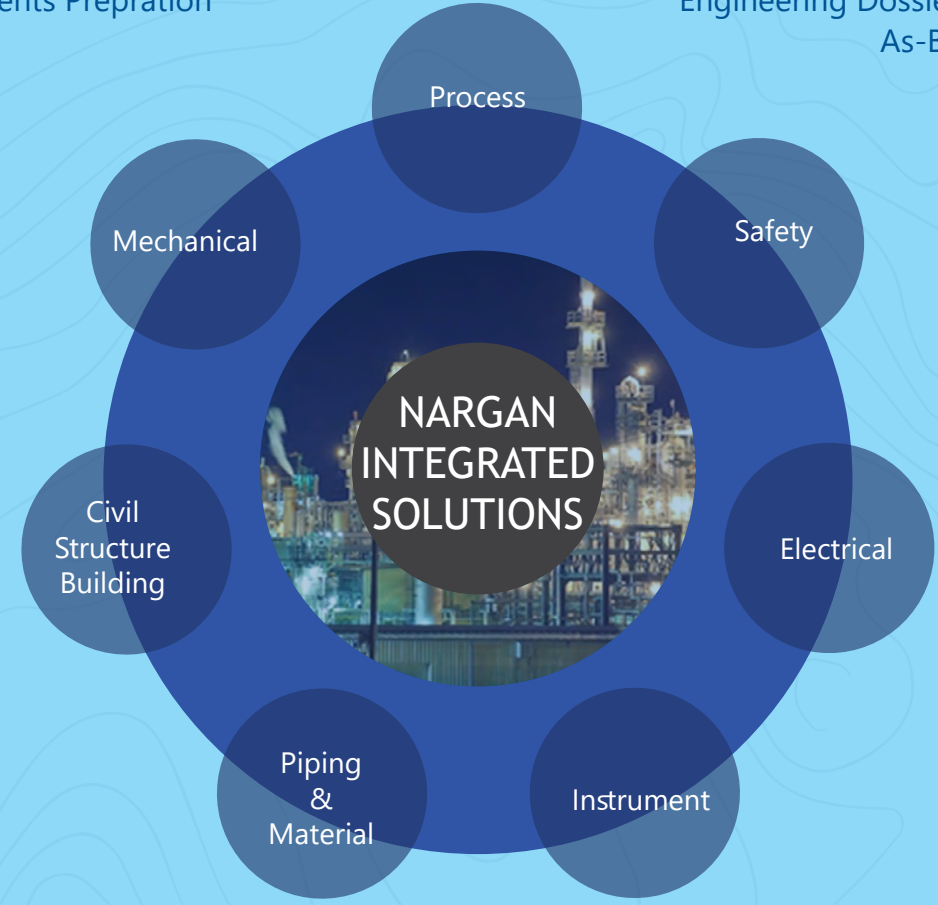
We offer a wide range of services including the initial concept of feasibility studies to the provision of know-how and license, basic design, front-end and detail engineering, followed by procurement, supply services, construction supervision and management.



Surface Engineering

- Bankable Feasibility Study
- Conceptual Design
- Basic Engineering
- Front-End Engineering Design
- ITB Documents Preparation

- Detailed Engineering
- Process Review & Modification
- Material Selection
- Dynamic & Static Simulation
- Engineering Dossier Preparation
- As-Built Drawing



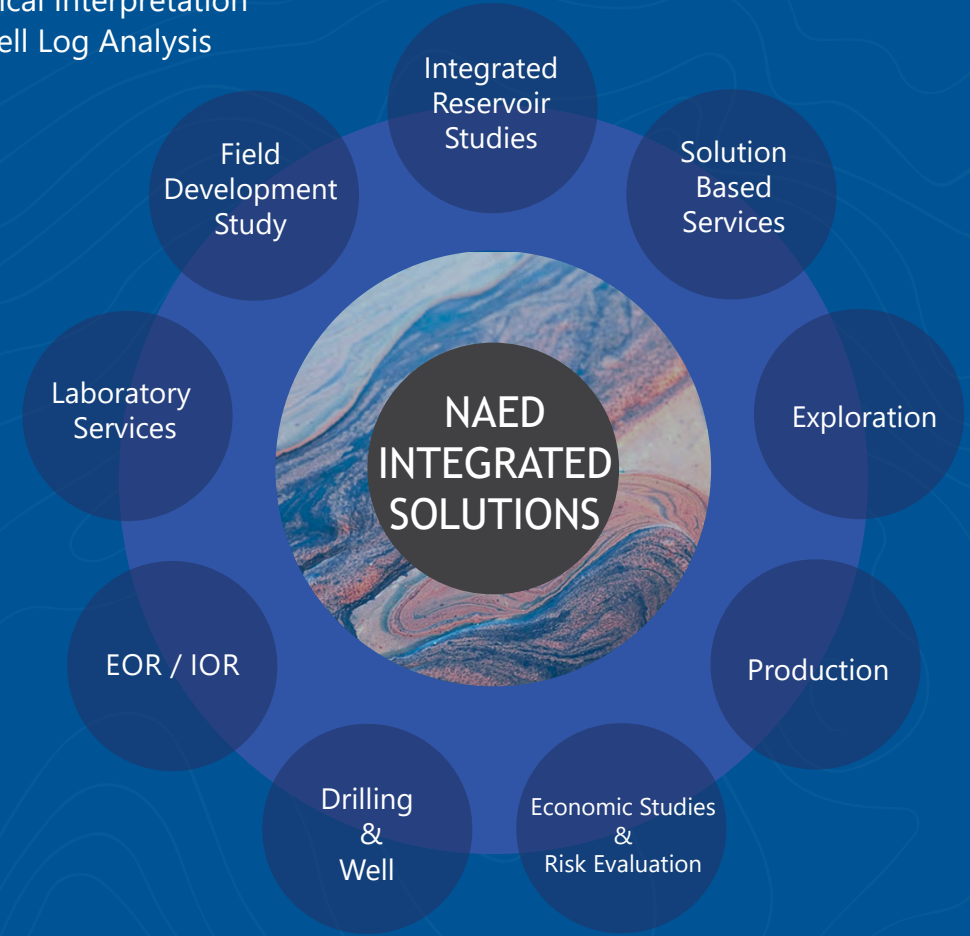
- Field Engineering
- Material Handling
- Site Supervision
- Construction Management
- Mobilization/Demobilization plan
- Accident & Incident Reporting
- Testing, Pre-Commissioning & Commissioning

- Material Requisition Preparation
- Inspection & Test Plan (ITP)
- Vendor Document Checking
- Technical Bid Evaluation
- Purchasing, Expediting & Transportation

Subsurface Engineering

- Geomechanics
- Geological Interpretation & Modeling
- Rock Physics & Seismic QI
- Velocity Modeling & Depth Conversion
- Petrophysical Interpretation
- Core & Well Log Analysis

- Structural & Stratigraphic Interpretation
- Prospect Inventory & Risk Analysis
- Basin Analysis & Regional Studies
- Geochemical Analysis & Interpretation

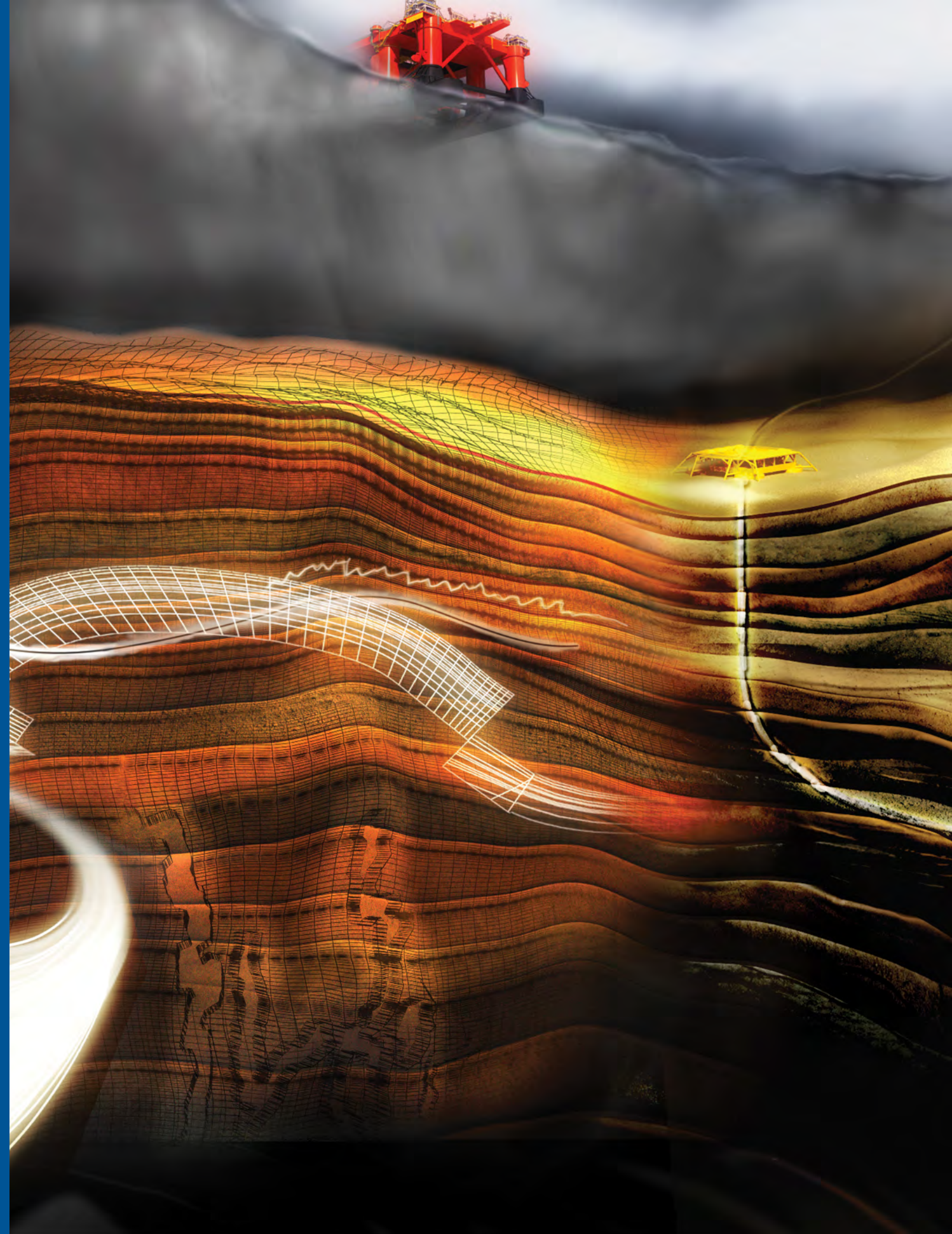


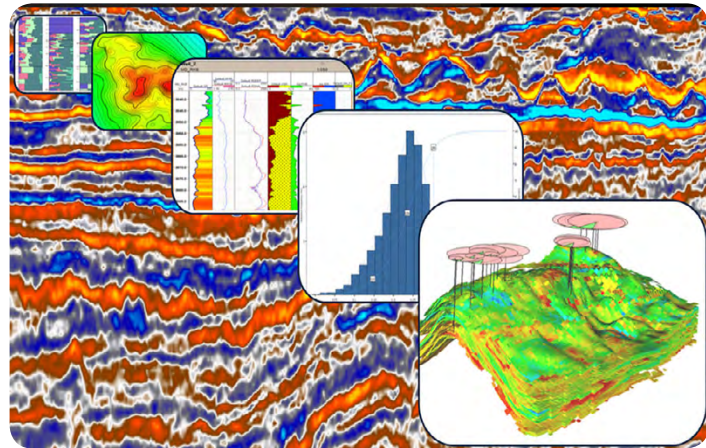
- Flow Assurance
- Production System Debottlenecking
- Organic & Inorganic Solid Deposition & Removal
- Maximize the Productivity Index
- Removal of Near-Wellbore Damage
- Near-Wellbore Management
- Production Chemistry
- Artificial Lift Design

- Basic Reservoir Engineering
- Static & Dynamic Modeling
- Reservoir Monitoring & 4D Seismic
- Uncertainty Analysis, History Matching & Production Forecasting
- Tailor Made Lab. Design
- Experimental Results QA
- External Lab. Work (PVT, RCAL, SCAL)
- EOR Screening and Experiments
- Pilot Design & Monitoring Program

Upstream Services

Very expensive decisions need to be made in oil/gas field development. These decisions involve a broad range of issues, for example: schedule for reservoir zone development; water/gas injection strategy; number of producers/injectors; well locations, trajectories, perforated intervals, and production/injection rates; artificial lift strategy; facility size, etc. The field-development projects need to include and consider not only a static or dynamic subsurface characterization but also the production-systems and facilities options, to trigger profitability and establish clear breakeven thresholds. More than ever, the consideration of deep water, tight reservoirs, remote locations, or environmentally critical plays is placed under the microscope.

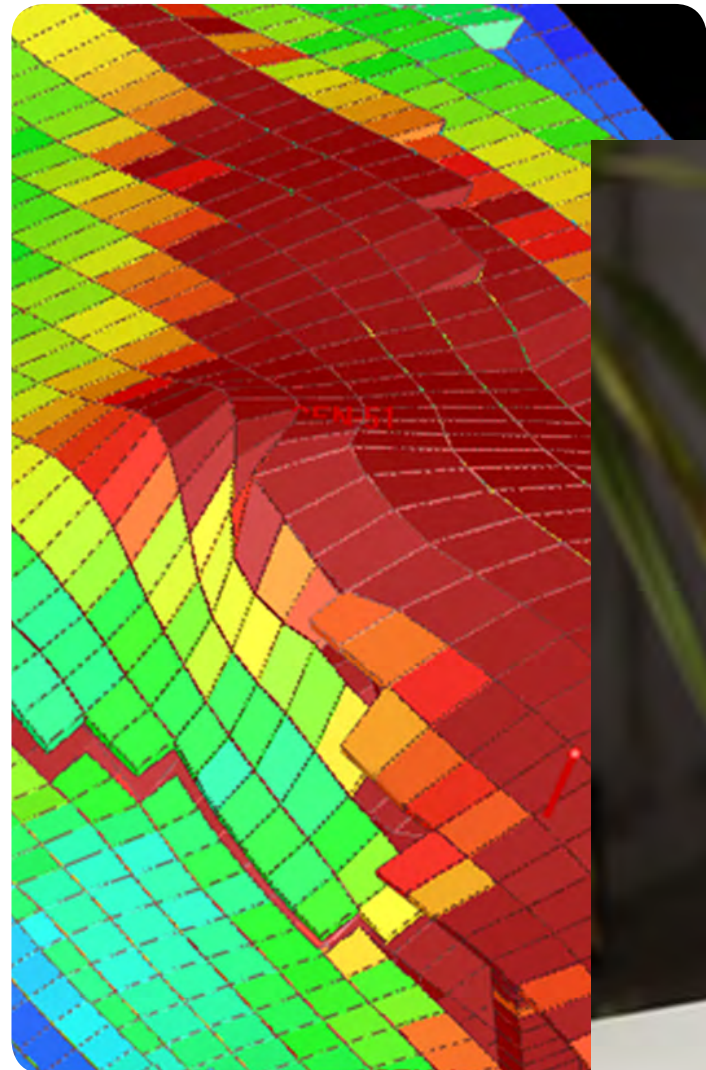




Integrated Reservoir Study

To make a better understanding of reservoir properties and estimate the volume of hydrocarbon, each discipline in NAED would provide the most accurate answer to the challenging questions related to reservoir properties by building a proper static and dynamic model. We utilize the most recent and proven techniques and tools to predict subsurface conditions and properties of oil and gas bearing formations.

To do this, our highly skilled geoscientists and engineers work with the client to boost production and advanced profitability. By delivering service we enable you to identify and address risks associated with key decision points in the oil and gas lifecycle and realize the full potential of your investment.

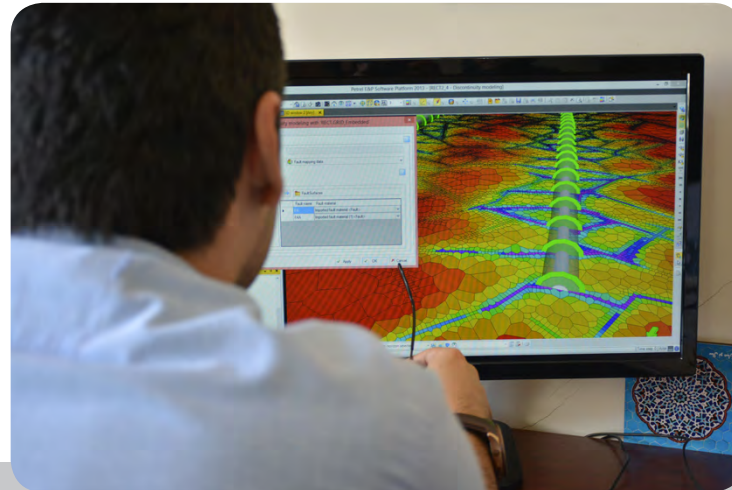


Key Business and Technology

- Core & Well log analysis
- Petrophysical Interpretation
- Rock Physics, Seismic QI
- Geomechanics
- Geological interpretation and Modeling
- Static Modeling
- Basic Reservoir Engineering
- Dynamic Modeling
- Uncertainty Analysis and History Matching
- Production Forecasting
- 4D Seismic

Basic Reservoir Engineering

NAED reservoir engineering team performs following activities as a basic reservoir engineering study. The output of this study is essential for further activities such as making static and dynamic reservoir model, implementation of production optimization, reservoir management techniques and/or IOR/EOR studies.



Material balance and volumetric calculation

- Calculation of STOIP
- Reservoir drive mechanism(s)
- Aquifer characterization

Review of petrophysical/core data

- Review and QC of RCAL/SCAL results
- Review and QC of core and log porosity integration and cut-off determination
- Review and QC of permeability and flow capacity computation
- Review of porosity versus permeability plot and permeability computation for different rock type
- Determination of flow functions (k_r , P_c) and residual oil and water saturation
- Determination of hysteresis plot and scanning curve

Well test and transient pressure test analysis

Static pressure measurements

Review of WFT (RFT/MDT/XPT) pressure data

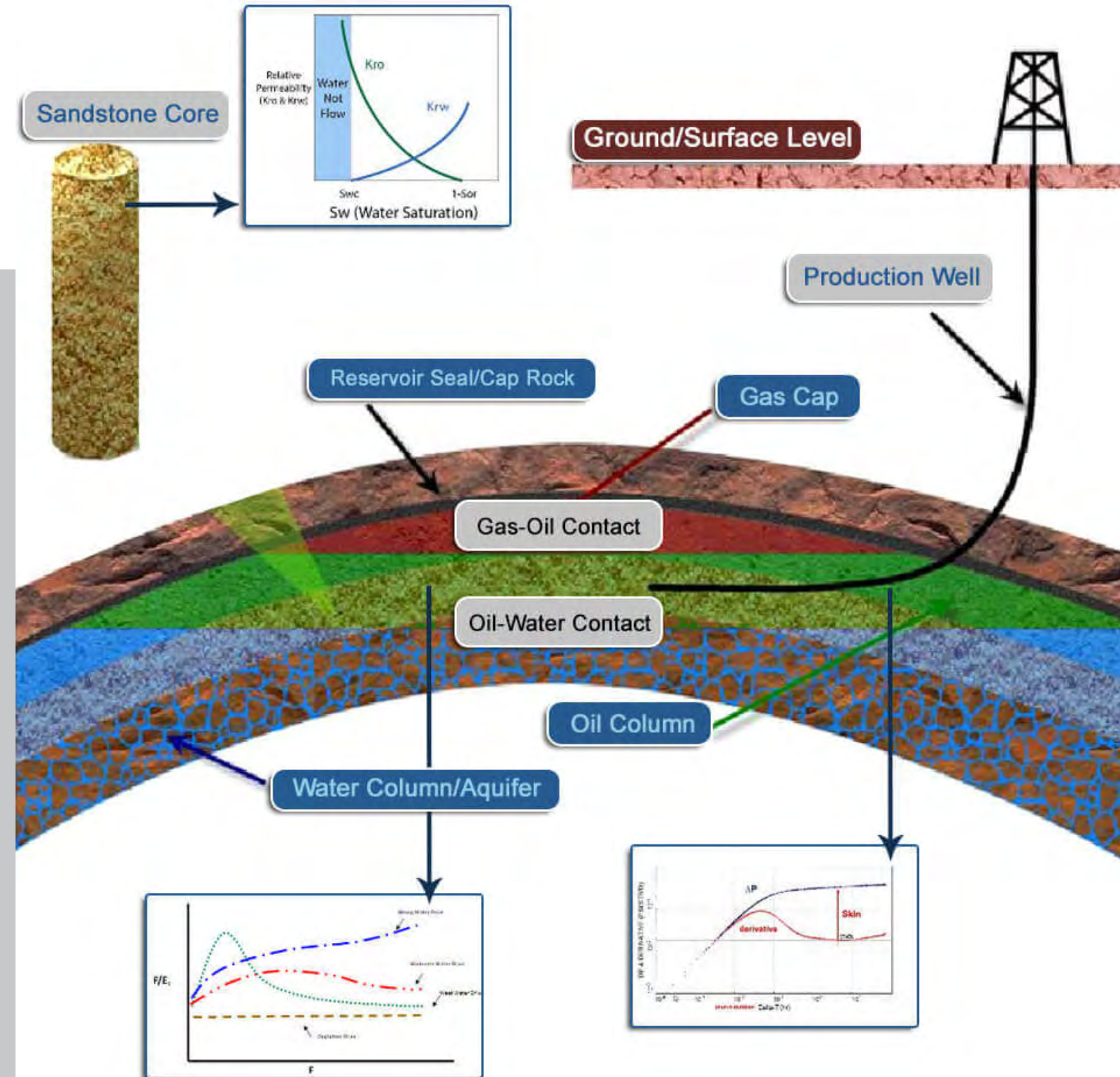
Review of Iso-Baric maps

Analysis of production tests, production logging test and DST

Reservoir fluid properties study

- Review and QC of PVT sampling reports and data
- Review and QC of PVT laboratory tests and reports
- PVT analysis and tuning of equation of state (EOS)
- Investigation of lateral and vertical variation of fluid properties

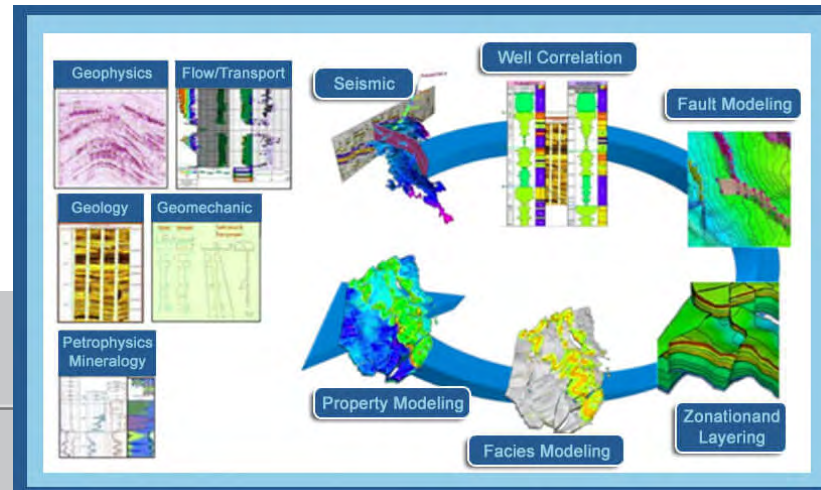
Basic Reservoir Engineering Study



Dynamic Modelling

For dynamic modeling, we combine the static model, pressure- and saturation-dependent properties, well locations and geometries, as well as the facilities layout to calculate the pressure/saturation distribution into the reservoir, and the production profiles vs. time. The entire life time of reservoir is simulated by considering different production schemes and operating conditions to maximize recovery from the reservoir.

Our dynamic modeling involves five steps:



- **Setting objectives**
- **Selecting the model and approach**
- **Upscaling the geological model by maintaining the same storage and transport properties of the reservoir rock described in detail by the "fine geological model"**
- **Gathering, collecting and preparing the input data**
- **Planning the computer runs, in terms of history matching or performance prediction**
- **Analyzing, interpreting and reporting the results**

5 Steps Dynamic Modeling

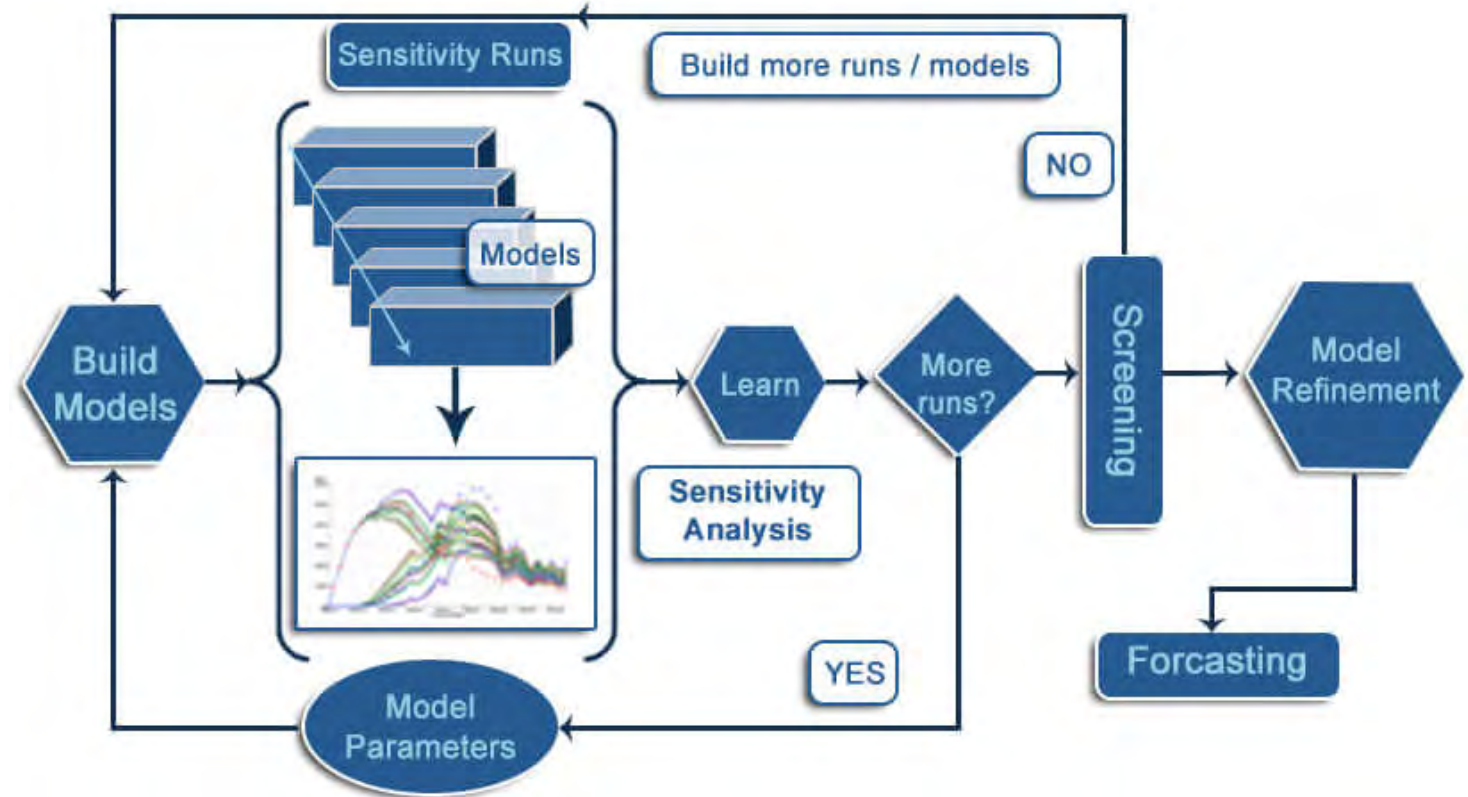
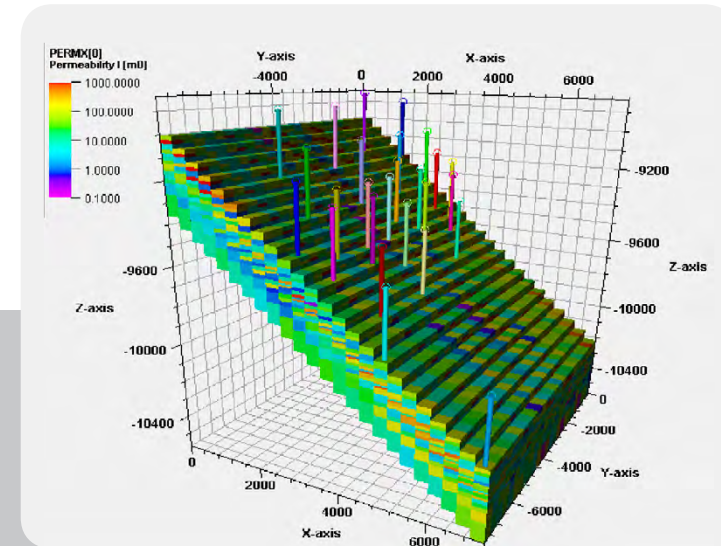
In order to decide which type of simulation model to be selected, it is very important for us to know the recovery process of the reservoir to reproduce the main reservoir drive mechanisms and the necessary accuracy of the expected results. Our expert team always gathers and checks the available information to ensure the quality of the data as it influences the level of detail to use in the model.

In NAED we are capable of working with Black oil, compositional, and thermal models to represent best drive mechanisms of a different type of reservoirs, and the selection depends on the type and behavior of the original reservoir fluids and on the predominant process controlling the reservoir production and hydrocarbon recovery.

Uncertainty Analysis and History Matching

We aim to assist our clients to increase the recovery factor, by optimizing the current production and injection schemes and improving the drainage strategy. This requires a well-history matched reservoir model, representing the reservoir.

- **History matching**
 - Production rate history matching
 - Production pressure history matching

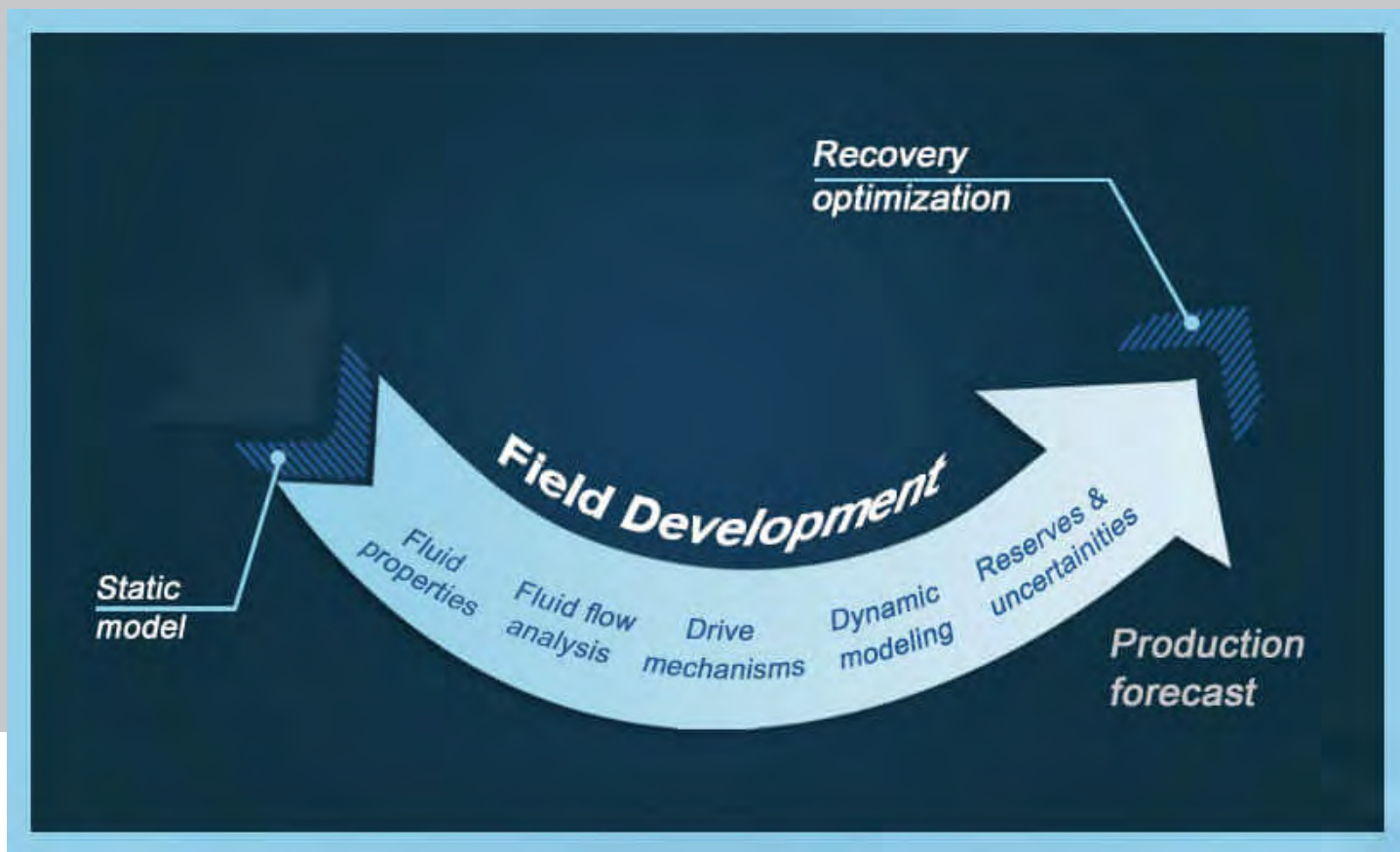


Forecasting

Production Forecasting

Once our simulation model is calibrated, the simulation models are then used to compute the production forecasts considering various hypotheses for the reservoir production.

In simple cases, this prediction phase can be performed in a few days, while the in more complex cases it can take several months depending on the size of reservoir model (i.e. number of cells), the type of simulator (i.e. black oil, or compositional), geological features of the model, the complexity of the wellbore system and of the surface facilities layout, and the number of prediction scenarios to be run. A general sequence for running the prediction phase in NAED is summarized as 1. Input data for predictions, 2. Definition of the cases to be run, 3. Setting guidelines and constraints to simulate the future production performance of a field, 4. Inflow and outflow well performance, 5. Running the prediction cases, and 6. Uncertainty assessment.



Improved/Enhanced Oil Recovery

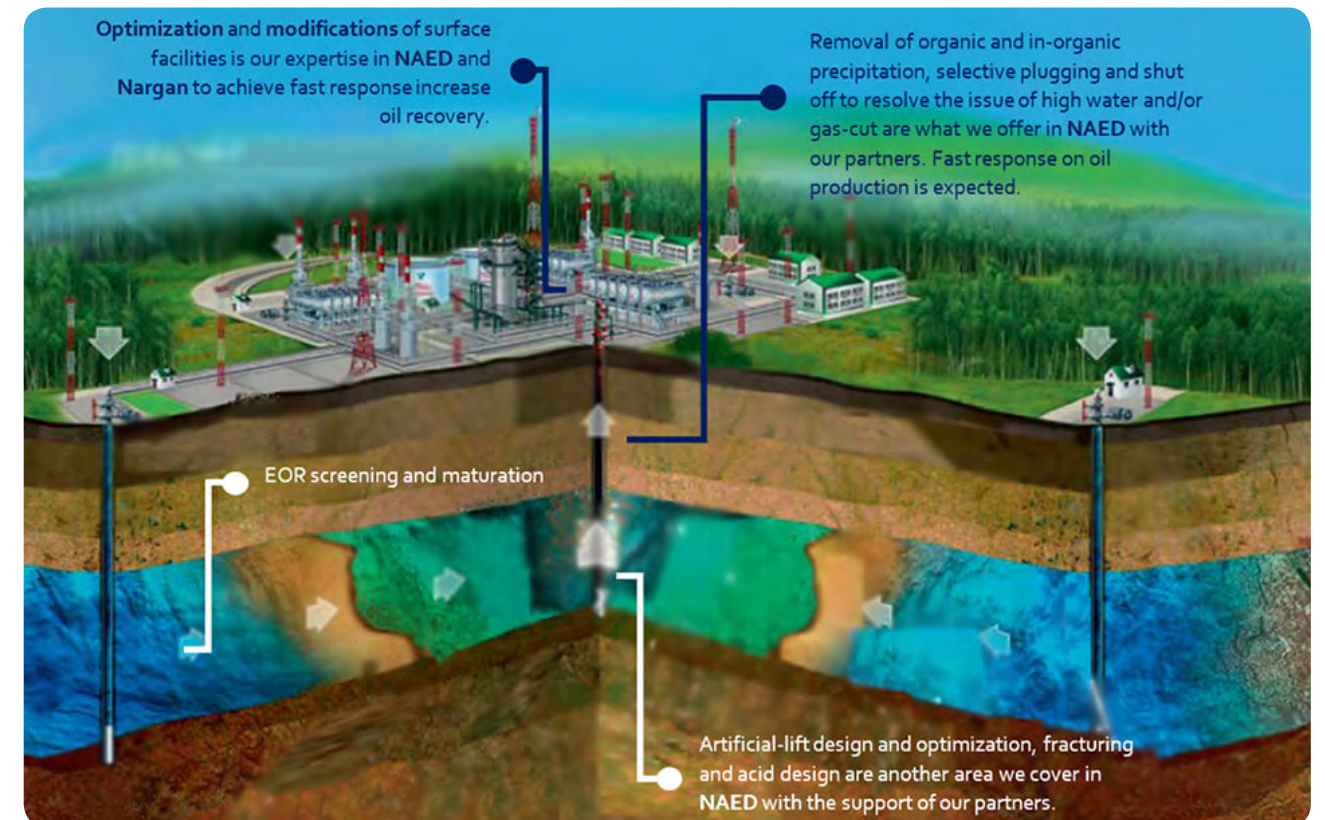
Most of the Iranian oil reservoirs are into their second half of life with expected low recovery factor. Many of the wells face excess water and/or gas production problems. However, estimated high remaining oil-in-place, are still among the most important oil fields of Iran and is simultaneously a very important target for increase oil recovery (IOR/EOR).

Our expert team in NAED believes that a new look at the field development plans with more focus on increased oil recovery for these fields are quite essential, in which the most desirable drainage strategy to be addressed (considering the current state of the fields). Additional wells and their placement, surface solutions with respect to the selected plan/modification, and screening EOR techniques are other important elements to be presented as a road towards implementation of the modified field development plans and eventually increased oil recovery from the fields.

NAED provides its client with a tailor made solutions to increase oil recovery from already developed fields (i.e. brown fields) and already explored and/or developing fields (i.e. green fields). Our solutions for increased oil recovery is classified into two steps:

Fast increase oil recovery: in this category we in NAED can work on activities which lead to oil recovery increase after very short time of operation (i.e. well therapy, and facility solution). These activities are relatively cheap with low CAPEX required.

EOR screening and implementation (delayed response increase oil recovery): Time-line of an EOR projects can be up to 10 years before to observe field response of increased oil production. This is suggested to be studied in parallel to the first group of activities and usually requires high CAPEX and OPEX.



Fast increase oil recovery Solutions

EOR; from concept to field implementation



Economic Studies & Risk Evaluation

Our results of economic evaluations are presented as the primary resources that can be used for making decisions. For each of the concept scenarios (or any qualified increase oil recovery plan), this will be carried out in NAED and the results are shared with our clients. Our economical evaluation is represented in the following steps:

- **Determination of the Project Objectives**
- **Estimation of the Revenue - Benefits for Each Scenario**
- **Cost Estimation for Each Scenario**
- **Creation of the Fiscal Model**
- **Financial Evaluation and Risk Analysis**

Economical Evaluation



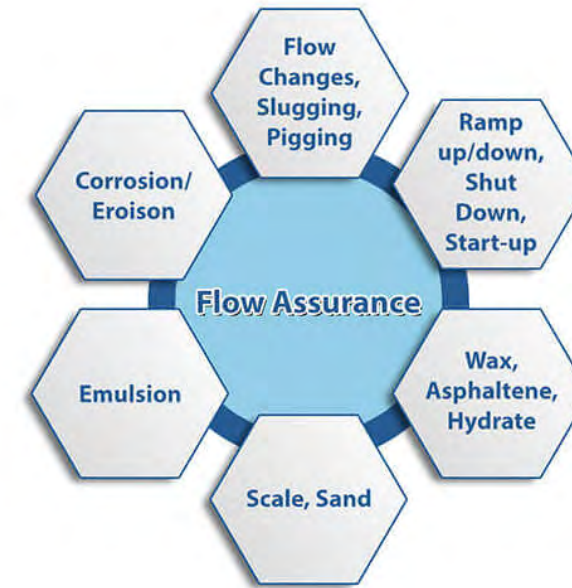
Flow Assurance

For many field developments as well as existing challenging export systems, flow assurance is one of the first and most crucial activities to be undertaken. The flow assurance strategies that are currently being deployed to achieve successful hydrocarbons recovery from increasing technically challenged areas need an integrated approach to the design of the transportation systems. It is no longer the case that each element of a hydrocarbon development can be designed in isolation.

At NAED we follow an integrated approach from well to oil and gas delivery point. We support following areas;

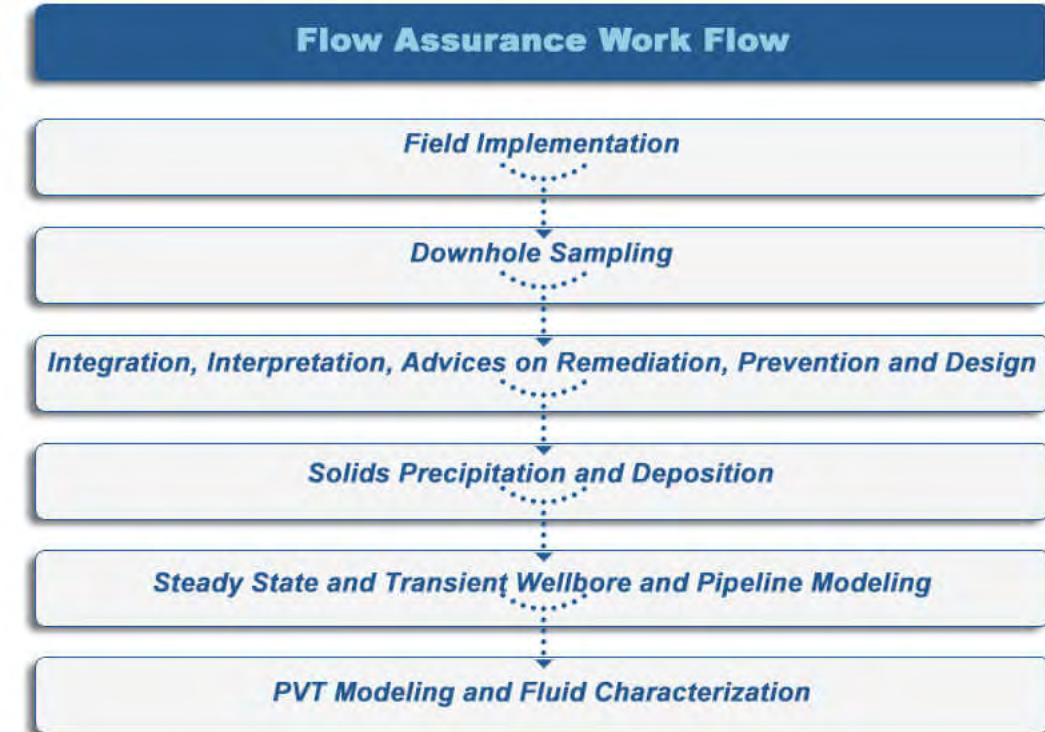
Integrated Approach from Well to Oil and Gas Delivery Point

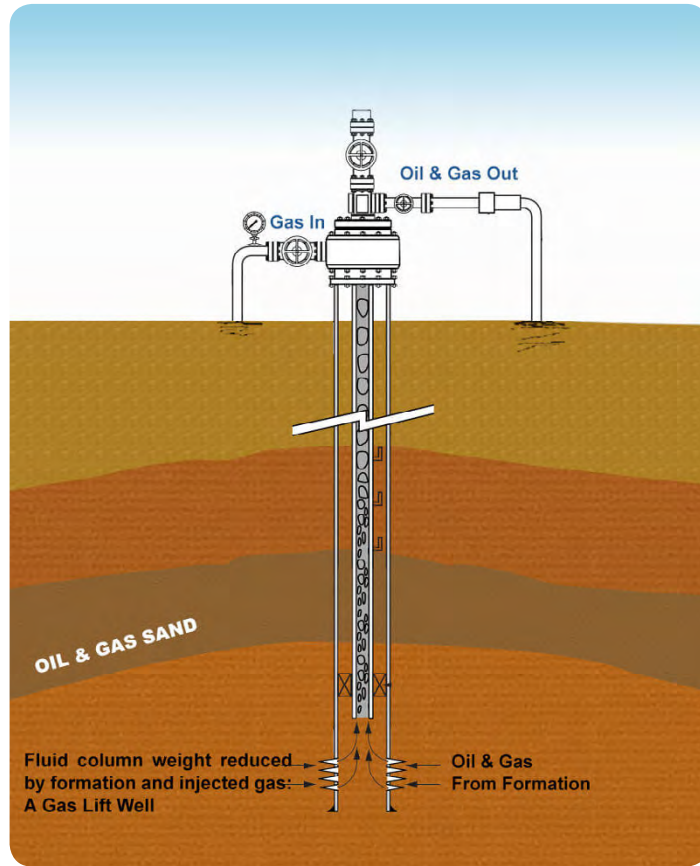
- Detailed well modeling (start-up, shut-down, stability)
- Transient well liquid loading
- Transient/Steady state artificial lift studies
- Export route/host facility selection based on existing/new pipeline or process limitations
- Steady state and transient multiphase flow analysis
- Liquid management in multi-phase transfer pipelines (pigging, slugging, slug catcher sizing)
- Pig/sphere type selection study
- Detailed start-up, cool-down and thermal performance assessment for onshore and offshore pipelines
- Liquid loading analysis of gas condensate wells and preparing lift curves
- Solid management (Wax, hydrate, asphaltene, scale)
- Troubleshooting of existing systems with wax and asphaltene
- Operations engineering support (Operations and Maintenance Philosophies and Strategies)
- Well completion and pipeline material selection and corrosion/erosion assessments



Production Engineering

NAED production engineering team's objective is to optimize oil and gas production in a cost-effective manner. In order to do so, we consider all the aspects of production from bottom hole to surface.





Artificial Lift Design

At NAED we provide integrated lifting solutions for enhanced well production. This is achieved by means of qualitative and quantitative analysis of the different artificial lift methods supported by simulation softwares. We combine the production engineering knowledge and surface engineering to prepare a holistic model to capture the impacts of different artificial lifts on the surface facilities. Our scope of services includes, but not limited to ;



Surface Facilities

At NAED we see oil and gas production (from pore to process) as a single component in energy supply life cycle. Our integrated surface-subsurface approach enables us and our clients to understand and challenge the subsurface production basis where appropriate. As we employ a wide range of technical disciplines, we fill all the interfaces and communication gaps that can result in by subcontracting a project to different contractors.

Thanks to our robust integrated approach we, together with our clients and partners, can make sure that surface processing facilities are fit for purpose and not conservatively designed based on which our clients can make sound investment decisions and execute projects with minimal technical, cost and schedule risks.

Key Business and Technology

- **Optimizing the existing artificial lift**

- **Nodal analysis to investigate well behavior under different artificial lift methods**

- **Evaluate different artificial lift methods**

Our integrated approach helps us to understand the challenges and risks that our client (will) face for new developments as well as existing facilities by the help of the services that we provide in design and operational support;

For facilities, already in operation for several years, our surface engineering knowledge and expertise along with our understanding of the reservoir and downhole can benefit our clients by reducing their operating costs, increasing productivity and enhancing safe production. This can be achieved by adopting our recommendations ranging from minor changes (e.g. level setting changes inside the separators, adding new internals, etc.) to major changes such as adding low-pressure compression train, employing new water treatment technologies, utilizing industry proven state of the art slug controlling schemes, etc.

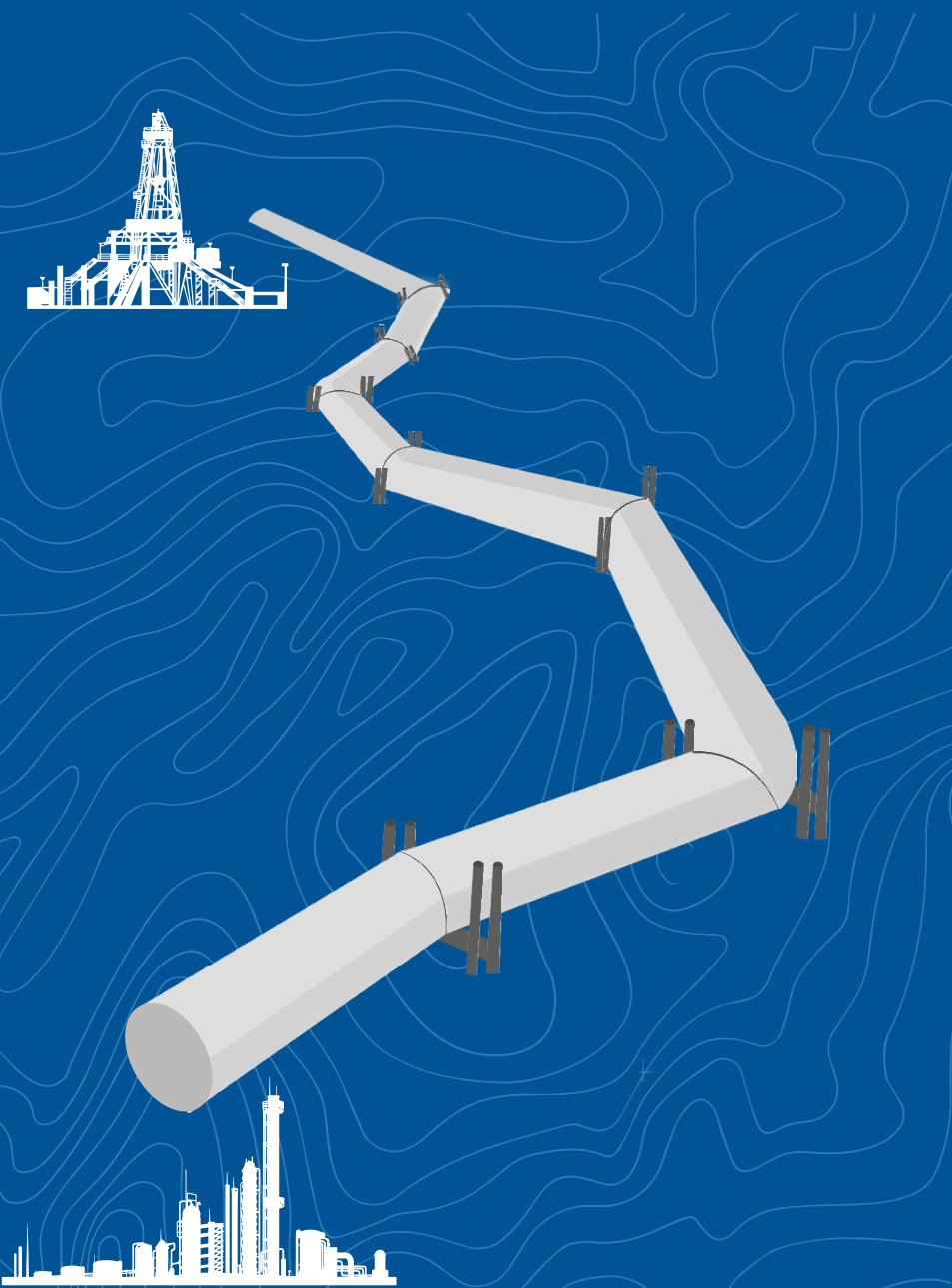
For new developments, from early phases of the project, we together with our partners, align a highly technically qualified team of all the related disciplines from subsurface up to and including surface to ensure to catch the impacts of the data received from reservoir/production engineering on the facility design and operation.

SOLUTION BASED SERVICES



PORE
TO
PROCESS

At NAED we use our expertise, and associates to work through fresh ideas and plans for our clients to solve their issues. In our team, we have highly skilled consultants who can provide engineering solutions to help you to remove obstacles in front of you. At NAED and for a given problem reported to us, first we focus on the root-causes of the problems, and then methodologies for identification of the source of the problem. We benefit from the internal knowledge of the various technologies. After selection of the right technology, we work closely with technology owners to control and/or handle the issue in the field. This approach is relevant to all aspects of our services from pores to process.



Some examples are as below;

PORE

We work closely with several associates, to be able to furnish our clients with solutions for the problem associated with the flow of phases in the porous system. Often, a 'fit-for-purpose' approach needs to be defined to better understand the heterogeneous nature of the hydrocarbon system. This involves a detailed understanding of the fluids saturation, pore-size distribution, permeability, rock texture, reservoir rock type at different scales.

There might be a wide range of issues showing up over the life time of a reservoir, including, but not limited to:

Water Production Problem

Increased H₂S and CO₂ during production

Decreased well Injectivity or Productivity

Challenging production from heterogeneous carbonate field.

High Pressure and High Temperature reservoirs

PROCESS

Many of our clients may suffer specific challenges in their surface production facilities. Growing environmental, commercial and public relations concerns regarding flaring and flare emissions, enforced operators to take immediate actions regarding flare gas recovery. Another challenge which can be found often in old producing oil and gas fields is high sand and solid production, due to conventional completion, which causes detrimental impacts on the wellhead facilities and therefore limited the production rates. Many of the producing oil and gas fields have been in operation for more than 20 years and the existing equipment and facilities may need optimization or modification. Working closely with our partners guarantee to provide the most efficient solutions for our clients. Due to high demand in above solutions, NAED teamed up with their partners to provide below fit-for-purpose solutions to clients:

Flare Gas Recovery

Sand & Solids Management

Maintenance, Modification & Operation (MMO)

Multiphase Separators & Desalters Performance Optimisation

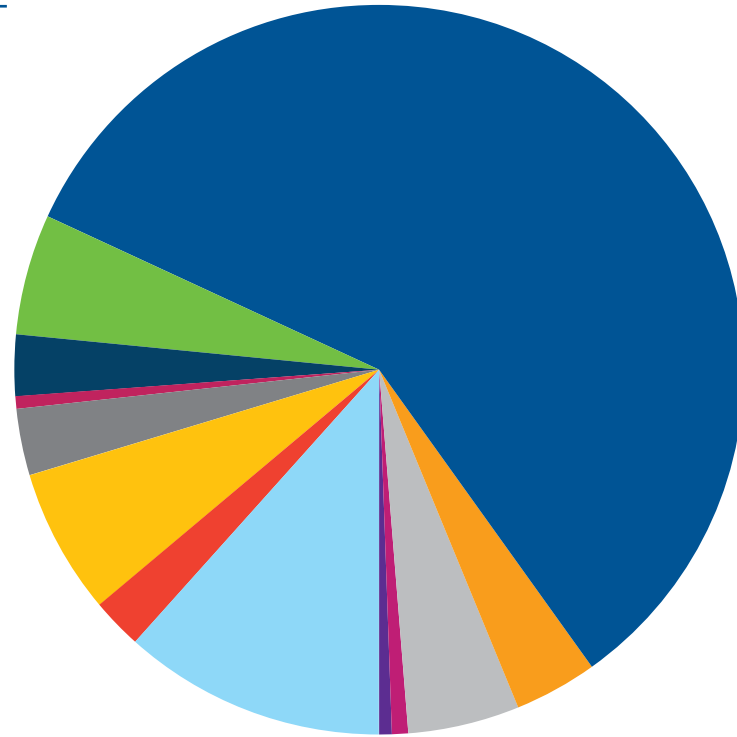


WE HAVE THE SOLUTION

Organizational Infrastructure

Distribution of Employees by Department

- Top Management
- Business Unit
- Project Management Division
- Planning, Scheduling and Cost Control
- Engineering Division
- Procurement Department
- Construction Supervision Department
- QHSE Department
- IT Department
- Human Resources Department
- Financial Department
- Support Services



Total Number of Human Resources=1,100

Engineering, Project Management: 730

Upstream Engineering Disciplines:

Reservoir Engineering, Drilling Engineering, Geophysics, Geology, Petrophysics, Production Engineering

Downstream Engineering Disciplines:

Process, Mechanical, Electrical, Safety, Instrumentation, Civil/Structure/Building and Piping Engineering

IT, Quality Management, Finance, HR: 170

Construction Management & Supervision: 100

Head Office: No.211, Taleghani Ave.

12 Buildings (Over 25,000 m²)

Updated Engineering Software

Project Management System

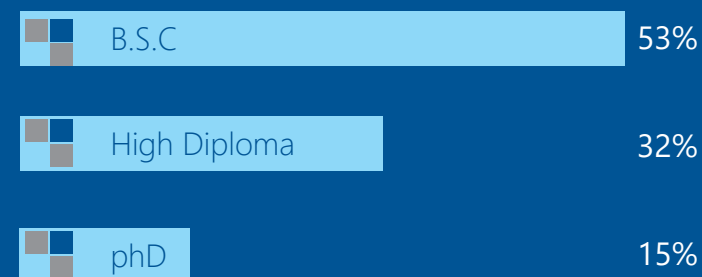
Engineering Document Management System

Project Communication Management System

Employees Distribution by Gender



Employees Distribution by Education



IT Infrastructure

Nargan has developed its IT infrastructure to facilitate the required activities for oil and gas projects. Calibrated engineering software, as well as, in-house information management systems and communication platforms has made Nargan a superior engineering firm and EPC service provider to large and complex oil and gas projects.

Campus Area Network (CAN)

Nargan campus consists of several buildings connected by 1Gbps fiber links to Nargan's data center. Network infrastructure with an easy expandable architecture is based on Cisco multilayer design and Microsoft services. Each building uses a layer 3 Distribution Switch - Cisco 3500 or 3700 series -to connect to the core switch -Cisco 4507R- in data center. Access switches -Cisco 2950 or 2960 -in floors of each building have been connected Via 1Gbps cat6 backbones to distribution switch, and Via cat5e or cat5 -100 BASE TX -to clients. Server blocks are located in data center and connected directly to core switch by 1Gbps links.

WAN Connections (Remote Access)

External users can access Nargan network by several methods. One method is internet access by means of VPN links and SSL certificates. Nargan CAN is connected to internet by two dedicated links, via different ISPs, a 1010/ Mbps and a 2424/ Mbps. Another method is point to point radio links established with trusted sites and partners to allow them to use Nargan network services and to enable internal users to connect to the said networks.

Security

All entry points of Nargan CAN have been armed with hardware firewalls equipped with licensed antivirus and intrusion protection services. Only the required services are accessible from outside and all other ports are blocked on border routers and firewalls. Second level software firewalls- MS ISA – monitor and protect internet access as well as external access to the CAN internal services. Internet access is encrypted by VPN or SSL. Email traffic is monitored by Microsoft approved third party spam killer.

Valid data is stored on RAID base network storages protected by scheduled HDD backup as disaster recovery system. Access to this data protected by

a strong ACL plan. Server are located in data center that is equipped with standard facilities such as emergency power, UPS, cooling and fire systems, restricted and audited access, anti static false floor and separate earthing system. All clients are equipped with antivirus program that is updated on schedule centrally.

Servers

More than 60 servers are employed to provide IT services for projects. Servers hardware are suitably chosen for the relevant service to comply with all users needs.

In order to satisfy the service level requirements, there are three levels of computer hardware for IT servers:

High performance:

- Hardware Brand: Intel, HP.
- Main Processor: Dual Intel Xeon, P IV, Dual and Quad core Processors.
- RAM:4 ~ 32 GB
- HDD: SCSI or Fiber channel with Raid controller card.

Medium Performance:

- Hardware brand: Intel, Super Micro.
- Main Processor: Dual Intel P IV, P III.
- RAM: 2 ~ 8 GB.
- HDD: SCSI/ SATA with raid controller card.

Normal performance:

- Hardware brand: Assembled with good parts such as Intel, Asus, Super Micro.
- Main processor: single or Dual Intel P IV.
- RAM: 2 ~ 8 GB
- HDD: SATA (with or without raid controller).

General IT Services:

Major IT services are: email (local and worldwide), web-file (secure file service accessing via internet browse), internet (browsing, downloading and uploading), in house developed application, intranet (a portal for easy access to in house developed web applications & project data), print and plot, special 3D Modeling application, file service, backup, antivirus, antispam and firewalling.

Office Automation

Hardware

The current standard workstation specification are the followings:

- General Desktop PC:
- Processor Intel core 2 Duo, RAM 4 GB, Hard disk SATA 250 or 500 GB, LAN card 3Com 10/100
- Screen Monitor 17"
- Cad / Engineering Workstation:
- Processor Intel core i5, RAM 4 GB ~ 8 GB, Hard disk SATA 500 GB ~ 1 TB, LAN card 3Com 10/100
- Screen Monitor 17", 19", 21" (2*17" LCD for cad workstation)

Software

The standard office software's installed on each PC complies the following configuration:

Office 2007, Adobe Acrobat Pro XI, WinRAR 5.3, Internet Explorer 11.0, McAfee Antivirus.

The operating systems are windows XP professional or Win 7.

Standard Engineering systems will be used on purpose by the relevant disciplines.

For easy access engineering and general Software List is attached.

Video Conference

Video conference service is available on demand for permitted projects and users. Required bandwidth for this service is ready and will be allocated for internally or externally use between project centers.

Project dedicated IT Services

Network architecture connects all project centers via internet or wireless connections. The following diagram shows more details on this subject.

Project Central Information Management (PCIM)

PCIM is a web based application & web site set up for project to support easy collaboration between all bodies -Client, Managing contractors (MC), Contractors- via EDMS. It also enables all the authorized to share and access the required information.

This application is based on Linux operating system, MYSQL data base and PHP programming.

As a whole this system is a perfect mean for improving the project team efficiency with the main benefits listed here after: (More details may be presented on request)

Information sharing

- View online, all project documentation through EDMS databases, by using a standard web browser.
- Central Project information access and easy consultation on documentation from all project bodies.
- Exchange of electronic files between parties through online web services.
- Centralizing project corresponding.

File Transfer

File transfer between all parties will be made possible by means of an open source web-based EDMS application running on web site, on which project shared space has been opened and structured for the project needs.

EDMS application has been empowered with automatic email notification, transmitted to identified members involved in document collaboration circulation.

Chat

The project web site is enabled with chat feature, available only for authorized and online users.

Confidentiality & Security

A Standard security policy is applied for access to web server to provide a safe working environment for the project.

Security and confidentiality is accomplished:

- By using the standard Linux Servers.
- By giving user identifications and passwords.
- By managing users access to project folder and files depending on the level and requirement.

- By the use of virus scans facilities implemented on each workstation and server.
- By firewall for external access (wireless or Internet)

EDMS System

The main functions of this System are:

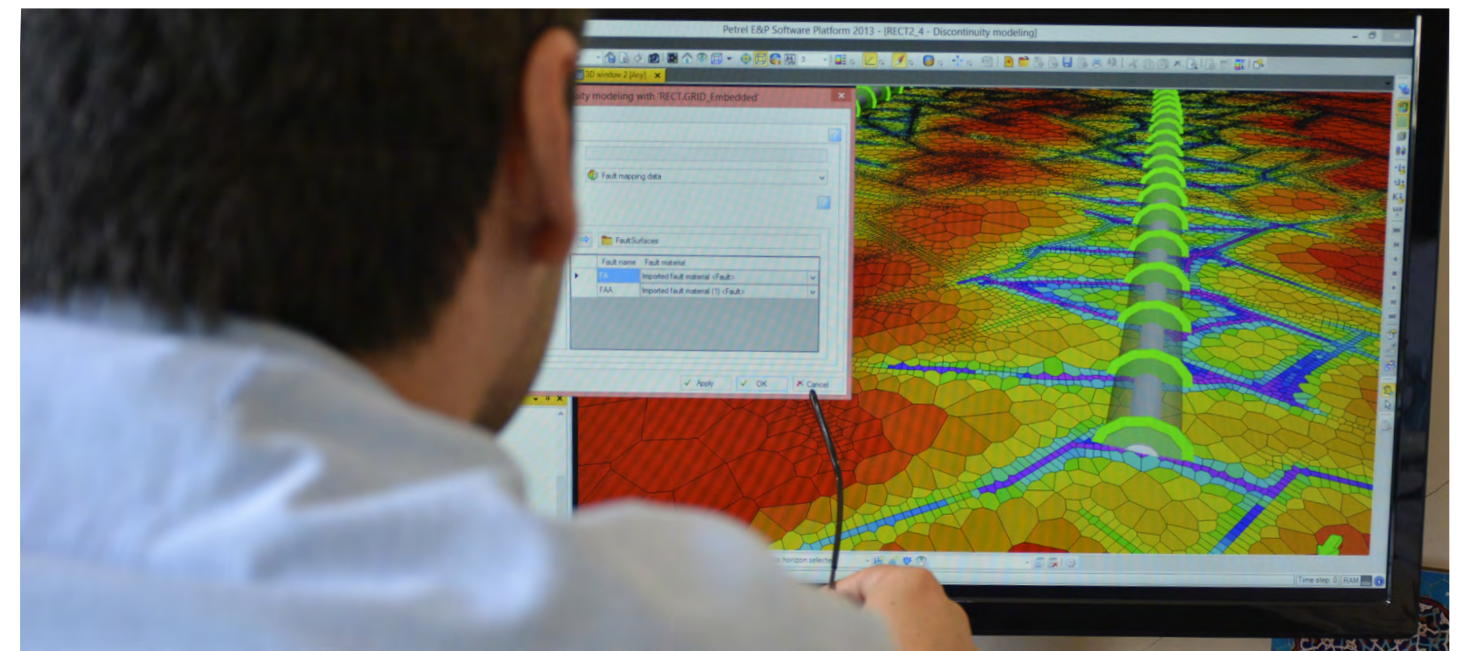
Document collaboration in a controlled and traceable manner by due date assignment and alert for expiry to each involved member, issue of automatic follow up email notification and keeping all the metadata in the classified databases.

Store in a safe and easy retrieval manner all the document revisions issued by the Project Team in electronic format. (Native and PDF format)

Control document status and revisions by keeping document history and all related interaction.

Inform Project Team of availability of issued documents and relevant transmittal numbers by email notification.

Provide access of the project team, according to defined access rights, to updated master document registry (MDR) list.



Engineering Software

General Software

#	Software	Version	Specialty
1	Adobe Acrobat Pro	8	Creating Adobe Portable Document Format file
2	Autodesk AUTOCAD	2021	Drafting Software
3	Autodesk Raster Design	2021	Scanned engineering drawings Vectorization and Raster Editing
4	Microsoft Office	2007	
5	Microsoft Office	2013	
6	Microsoft Visio	2013	Create and share 2nd technical drawings
7	Microsoft Windows	7	Operating System
8	Microsoft Windows	10.0	Operating System
9	Microstation J	07.01.01.36	Drafting Software
10	Microstation J	08.09	Drafting Software
11	OmniPage Professional	15	OCR Tools for converting scanned document to editable format
12	PDF Grabber Professional	3	Convert PDF files to multiple other formats
13	WinRAR	3.62	Archive Utility
14	NavisWorks JetStream	5.2.3	Interactive 3D design review
15	BAKSH NAMEH	5.15	Sazeman Barnameh-V-Budjeh Proclamations
16	Tadbir	17 2.8	Unit Rate Analysis
17	Tadbir	17.01	Unit Rate Analysis

Reservoir & Simulation Department Software

#	Software	Version	Specialty
1	SLB Eclipse	2016.1	Black oil, compositional, thermal, EOR, and streamline reservoir simulator
2	CMG	2018.10	Black oil, compositional, thermal, and EOR reservoir simulator
3	CMOST	2018.10	Uncertainty analysis, optimization, history matching using artificial intelligence
3	PVTsim	20 & NOVA	Versatile equation of state (EoS) modeling simulator for fluid properties and experimental PVT data
4	PVTi	2016.1	Equation of State based package for generating PVT data from the laboratory analysis of oil and gas samples
5	SimOpt	2016.1	SimOpt is a testbed of simulation-optimization problems and solvers.
6	Petex IPM Suite	11	Integrated Production Modelling software (IPM)
6.1	MBAL	11	Analytical reservoir engineering toolkit
6.2	REVEAL	11	Simulator for specialized reservoir studies
6.3	PVTp	11	Thermodynamic fluid characterization package
7	KAPPA	5.20.02	integrated engineering suite which offers analysis and modeling tools for reservoir dynamic data
7.1	Saphir	5.20.02	Pressure Transient Analysis (PTA)
7.2	Topaze	5.20.02	Rate Transient Analysis (RTA)
7.3	Rubis	5.20.02	Multi-purpose numerical model
7.4	Citrine	5.20.02	Field performance analysis
7.5	Emeraude	5.20.02	Cased hole logging and production log analysis
7.6	Azurite	5.20.02	Formation testing

Economic Studies Software

#	Software	Version	Specialty
1	IHS Questor	IHS Co.	Upstream Projects Cost Estimation Modelling

Production Department Software

#	Software	Version	Specialty
1	SPT OLGA	2018.1.0	Modeling and simulating multiphase flow, dynamic process inside pipes, time-dependent or transient flow simulation to maximize production potential
2	SLB PipeSim	2018.1.0	Designing wells and pipelines to ensure produced fluids will be safely and economically transported to downstream (Multiphase flow, heat transfer, and fluid behavior)
3	Petex IPM Suite	11	Integrated Production Modelling software (IPM)
3.1	GAP	11	Multiphase network modeling and optimisation
3.2	PROSPER	11	Multiphase well and pipeline nodal analysis
4	Aspentec HYSIS	11	process simulation/optimization in design and operations
5	WellFlo	2015	Well completion design

Geology & Geophysics Department Software

#	Software	Version	Specialty
1	Paradigm Geolog	17.0	Seismic processing, time to depth inversion, velocity model, and log interpretation
2	Roxar RMS	10.0	Geological models & reservoir characterization
3	Senergy IP (Interactive Petrophysics)	4.6 (2019)	Petrophysical & Geological Studies
4	Weatherford PetroLog	10.7.1.6	Log data management, petrophysical & image log analysis
5	SLB Petrel	2019	Geophysics, Geology and static modelling
6	Hampson Russel	10.2	Geophysics

Drilling Department Software

#	Software	Version	Specialty
1	SLB CemCADE	2009	Optimization of Cementing operation
2	Landmark EDT	5000.14	Drilling management, design , T&D, Risk management
3	Drilling Office x (DOX)	2.10	Management, T&D, design (hydraulic, casing, BHA, ...)
4	SPT DrillBench	2018	Hydraulic design, Well control,

HSE Department Software

#	Software	Version	Specialty
1	Aspen Flarenet	2006	Steady-state design, rating, or debottlenecking of single or multiple flare and vent systems
2	Aspen Flare System Analyzer	7.1	Steady-state design, rating, or debottlenecking of single or multiple flare and vent systems
3	Flaresim	1.1	Analysis of Thermal Radiation from Flare Systems
4	PHA PRO	7.0.0.29	HAZOP Analyzes Software
5	PHAST	6.6	Process Hazard Analysis
6	PIPENET Vision (Spray / Sprinkler Module)	1.5.1	Design of Fire Protection Systems employing an inert gas
7	Sound PLAN Essential	1.1	Noise propagation and pollution modeling software

CSB Department Software

#	Software	Version	Specialty
1	ASHRAE Psychrometric Analysis	3.1.50	ASHRAE Psychrometric Chart
2	E20-II	1.4 (Dos Version)	HVAC Design Programs
3	E20-II / Black Load	3.05	HVAC Design Programs / Load Estimating
4	E20-II / Hourly Analysis Program (HAP)	4.41	HVAC Design Programs / Load Estimating & Energy Use Analysis
5	E20-II / Weather Databases		
6	Elite Soft - Chvac	7.01.45	Calculate heating and cooling loads for commercial buildings
7	Autodesk Civil Design	2007 SP1	Site Development
8	Autodesk Land Desktop	2007 SP1	Site Development
9	6DOFS	7	Dynamic analysis of block type undation, Dynamic analysis of table type foundation
10	BOCAD	20.5273	3D Steel struc ure Design software
11	BOCAD	21.8457	3D Steel struc ure Design software
12	ETABS	9.0.7	Linear & Nonlinear Static & Dynamic Analysis & Design of Building Systems
13	MATHCAD	14	Industry standard calculation software
14	SAFE	8.0.6	Integrated Analysis & Design of Concrete Slabs & Basements
15	SAP 2000	10.0.7	Integrated Structural Design and Analysis Software
16	SAP 2000	14.1.0	Integrated Structural Design and Analysis Software
17	Tekla Structure (Steel Detailing)	16	3D Steel struc ure Design software
18	VANTAGE PDMS (Open Steel)	--	Provide a bi-directional interface between VANTAGE PDMS and leading steel detailing packages such as X-Steel
19	PDS	7.1	Plant Design System
20	PDS	6	Plant Design System
21	VANTAGE PDMS	11.5 SP1	Plant Design Management System

Control & Instrument Department Software

#	Software	Version	Specialty
1	FIRSTVUE (FISHER)	1.0Y	Control Valve Sizing
2	FLOWEL	4	Flow elements sizing & calculation
3	SRVS (DRESSER)	6.2.0.1037	Pressure Relief Valve Sizing & Selection
4	ValSpeQ (Masoneilan)	3.80.0	Valve & Level sizing and selection
5	PDS	7.1	Plant Design System
6	PDS	6	Plant Design System
7	VANTAGE PDMS	11.5 SP1	Plant Design Management System

Electrical Department Software

#	Software	Version	Specialty
1	EPLAN	5.5	Generating Single Line and Wiring Diagrams
2	ETAP POWER STATION	5.5	Calculations-Network Analysis, Calculations-Grounding, Calculations- Cable Sizing, Design Study(Shortcircuit, Load Flow, etc), Calculations-Relay Seeting, Electrical Transient Analyzer
3	ETAP POWER STATION	7	Calculations-Network Analysis, Calculations-Grounding, Calculations- Cable Sizing, Design Study (Shortcircuit, Load Flow, etc),Calculations-Relay Seeting, Electrical Transient Analyzer
	PDS	7.1	Plant Design System
5	PDS	6	Plant Design System
6	VANTAGE PDMS	11.5 SP1	Plant Design Management System

Mechanical Department Software

#	Software	Version	Specialty
1	ANSYS	12	Finite Element Analysis (Stress Analysis)
2	Aspen Exchanger Design & Rating	7.0	Simulation and Design of Heat Transfer Equipment. (Thermal and mechanical design of heat exchanger)
3	COMPRESS	6.4 (Build 6258)	Design and analysis of ASME Section VIII pressure vessels and heat exchangers
4	FEPIPE (PRG Soft 2005)	4.2	Finite Element modeling
5	FEPIPE (PRG Soft 2010)	6	Finite Element modeling
6	Finglow	2009-1	Design of Pressure Vessels and Heat Exchangers using PD 5500
7	MECHANICAL DESKTOP	2008 SP1	Finite Element Analysis
8	MSC-FATIGUE	2005	Finite Element Analysis
9	MSC-NASTRAN	2005	Finite Element Analysis
10	MSC-PATRAN	2005	Finite Element Analysis
11	NOZZLE-PRO (PRG Soft 2005)	6	Finite Element Analysis for Nozzles in Shells, Heads & Cones
12	NOZZLE-PRO (PRG Soft 2010)	8	Finite Element Analysis for Nozzles in Shells, Heads & Cones
13	PVELITE	2007	Pressure Vessel Design / Analysis Software
14	PVELITE	2008	Pressure Vessel Design / Analysis Software
15	PVELITE	2010	Pressure Vessel Design / Analysis Software
16	SOLID WORKS	2008	Modeling
17	TANK	2.55	Design & Evaluation of Welded Steel Oil Storage Tanks API 650/653
18	TANK	3.1	Design & Evaluation of Welded Steel Oil Storage Tanks API 650 (11th Edition) / 653 (3rd Edition)

Piping Department Software

#	Software	Version	Specialty
1	Autodesk Navisworks Manager	2010	Interactive 3D design review
2	CADWorx Equipment	2009	Parametric Equipment Modeling
3	CADWorx Plant ISOGEN	2009	Automatic generation of piping isometrics
4	CADWorx Plant Professional	2009	Plant Design Software
5	CAESAR II	4.5	Piping Flexibility & Stress Analysis Program
6	CAESAR II	5.00.7	Piping Flexibility & Stress Analysis Program
7	MTO	--	Material Take Off calculation from PDS
8	PDS (Plant Design Trouble Shooting)	2009.1.1.1	Plant Design Trouble Shooting system
9	PlantWAVE Cadworx Light	1.2.6	General Arrangement drawing generation for CADWorx PLANT
10	PlantWAVE PDMS Pro.	3.9.7	General Arrangement drawing generation for PDMS
11	Puma5 Full, PDS Link , PDMS Link	2.3	Piping material management systems
12	, Mechanical Check	2.3	Piping material management systems
13	Puma5 Full, PDS Link , PDMS Link	2.3	Piping material management systems
14	Puma5 Full	2.3	Piping material management systems
15	Puma5 Lite	2.3	Model Review
16	Smart Plant	4.2.0.14	Material Take Off calculation for pipe supports (Base on TECHNIP Pipes Supports standards)
17	SUPPORT M.T.O (SMTO)	--	Pipe support program
18	SUPPORT TAG & VIEW (STV)	--	(Base on TECHNIP Pipes Supports standards)
19	MTO	--	Material Take Off calculation from PDS
20	PDS (Plant Design Trouble Shooting)	2009.1.1.1	Plant Design Trouble Shooting system
21	PlantWAVE Cadworx Light	1.2.6	General Arrangement drawing generation for CADWorx PLANT

Process Department Software			
#	Software	Version	Specialty
1	AFT Impuls	3	Incompressible Pipe Flow Network Analysis & System Modeling
2	Aspen Engineering Suite	2006	Including:
3	Aspen Engineering Suite - Aspen Process Modeling	7.1	Aspen Hysys, Refsys, Plus, HTFS, HTFS+, Polymer, Dynamic
4	CADWorx P&ID Professional	2009	Including:
5	HTRI Xchanger Suite	5 SP2	Aspen Hysys, Aspen Hysys Petroleum Refining, Flare System Analysis, Properties
6	HTRI Xchanger Suite	6	Creating smart P&ID's
7	PIPENET Vision (Transient Module)	1.32	Thermal design of Heat Exchanger
8	PIPESIM	2006.1	Thermal design of Heat Exchanger
9	ProMax (with TSWEET & PROSIM)	2	Unsteady flow calculations for water hammer, steam hammer, control systems and hydraulic forces for pipe stress analysis
10	ProPlan	3.6.14	Steady-state, multiphase flow simulator used for the design and diagnostic analysis of oil and gas production systems.
11	SIMSCI PIPEPHASE	9.1	Stream based process simulation package, to design and optimize gas processing, refining, and chemical facilities
12	SIMSCI PRO II	8.1	Optimization and planning of plant operation.

Project & Cost Control Software			
#	Software	Version	Specialty
1	Microsoft Project	2007	Project Scheduling & Control Project
2	Primavera (Planner / Scheduler)	6.2	Project Scheduling & Control Project
3	Primavera Project Planner (P3)	3.1	Project Scheduling & Control Project
4	OSPS	--	Including:

IT Software			
#	Software	Version	Specialty
1	ARCSERVE	IT SOFTWARE	Data Backup & Recovery
2	Backup Exec	6.0.8	Data Backup & Recovery
3	CISCO Network Assistant	5	Cisco switches, routers, and access points, management
4	DameWare Mini Remote Control	2009	Remote Trouble Shooting
5	File Sync	1.3.1	Synchronize data between Windows Servers
6	GFI EndPoint Security	6.0.8	Network-wide control of portable storage, media and consumer electronic devices
7	GFI LANguard Network Security Scanner	5	Security scanning and patch management
8	GFI LANguard portable storage control	2009	
9	GFI Mail Archiving	1.3.1	Exchange Mail Archiving
10	GFI Mail Essential	6.0.8	Server-based Anti-spam, anti-phishing
11	GFI Mail Security	5	Mail Server anti-virus, content checking, exploit detection and anti- trojan security
12	IDEAL Admin	2009	Windows Networks Administration
13	LAN Accounting	1.3.1	Internet usage Control
14	McAfee ePolicy Orchestrator	6.0.8	Security Management
15	McAfee VirusScan Enterprise	5	Active Virus Defense System
16	MICROSOFT EXCHANGE SERVER	2009	Mail Server
17	MICROSOFT ISA SERVER	1.3.1	Firewall
18	MICROSOFT SQL SERVER	6.0.8	Database Server
19	MICROSOFT WINDOWS SERVER (32 & 64 Bit)	5	Operating system
20	Norton Ghost	2009	System Recovery
21	SOLAR WINDS	1.3.1	Network Management & Monitoring

IT Software

#	Software	Version	Specialty
22	Symantec Mail Security for Exchange	6.0.8	Anti Virus and Anti Spam
23	UNDELETE	5	File recovery
24	Undelete Server	2009	File recovery
25	ViceVersa Professional	1.3.1	File Synchronization, Replication, Backup and Comparison

Human Resource (HR) Software

#	Software	Version	Specialty
1	PWKara	3.1.2.0 (DLL: 89-106-ID)	Cart Reader device Software (Serial No.: 2282)
2	PWKara	3.1.1 (DLL 88-243)	Cart Reader device Software (Serial No.: 6298)


Accounting Software

#	Software	Version	Specialty
1	NAMAAD	--	Payroll & Personnel System
2	PAYROLL	--	Payroll System
3	System Group MIS	3.0.4.2	Accounting, Treasury, Currency, English Reports, Systems



Health, Safety & Environment

Nargan is severely committed to preserve the environment and people and consider health and safety aspects and regulations in its daily operations and engineering designs. In addition, Nargan has established integrated management systems (IMS) to assure the quality of its services and their compliance with HSE standards.

	Nargan Quality, Environment, Safety and Occupational Health Policy	Doc. No.: Q/01-PO-001	
	Policy	Rev. : A	Page: 3 of 3
<p>The vision of Nargan Company is based on maintaining, sustaining, strengthening and developing its activities regarding basic and detailed engineering, procurement, construction, project management and acquiring additional market share in the oil, gas and petrochemical industries. To this end, the company's strategy encompasses the development of human resources as its main asset, enhancement of management systems, utilization of state-of-the-art technologies in its activities and respect for the environment, the community and all interested parties.</p> <p>The following principles describe the company's policy framework and strategy:</p> <ul style="list-style-type: none">❖ Improving leadership and project management capabilities, by establishing project management system in order to execute the projects in an effective and timely manner with the highest possible precision and quality that provide all interested parties with maximum added value.❖ Identifying significant environmental aspects and major health and safety risks and opportunities in all activities of the company, hence raising staff awareness and taking appropriate actions to eliminate or minimize their undesirable impacts.❖ Developing the resources and improving the knowledge and skills required to respond to the changing needs of market and clients, while using worldwide standards in company projects.❖ Commitment to observe national laws, terms & conditions of contracts with clients, defined codes and standards and other relevant requirements concerning quality, environment, safety and occupational health.❖ Adopting a flexible and open approach towards the needs of clients and interested parties by identifying their needs and expectations and the existing or prospect risks and opportunities, in order to bring the highest possible level of satisfaction to all parties.❖ Commitment to prevent environmental pollution, work injuries and illnesses in the workplace and operational (construction & supervision) projects, also taking into account environmental, safety and occupational health principles in engineering & design stages, within the legal and contractual requirements.❖ Respecting the code of ethics, the organizational culture, the protection of the environment and the sustainable development, along with commitment to the philosophy of continual improvement of quality. <p>In this regard, all Nargan personnel are responsible and committed to observe the above mentioned principles and bring to the fore the quality enhancement, environmental protection and compliance with safety and health in all aspects of their activities at work.</p> <p>For the purpose of achieving the above principles, Nargan pursues the implementation, maintenance and continual improvement of its quality management system based on ISO 9001, ISO/TS29001 and its environmental, safety and occupational health management systems based on OHSAS 18001 and ISO 14001 standards.</p> <p>_____ F. KAYHANI Chairman & Managing Director January 2017</p>			



Achievements

**OVER
300**
COMPLETED
PROJECTS

The **BIGGEST**
Olefin,
Ethane Recovery
and
Gas Treatment Plant

**OVER
60** LOCAL
and
**FOREIGN
CLIENTS**

Achievements

**MORE THAN
10,000,000
ENGINEERING
MAN-HOURS**

COOPERATION
25
with
INTERNATIONAL
Companies

**OVER
€5.0
BILLION**
Contract Value

420 MMSCMD of Gas Production & Treatment Facilities

102 MMSCDM of Gas Separation Facilities

1,000,000 BPSD of Crude Oil Production Facilities

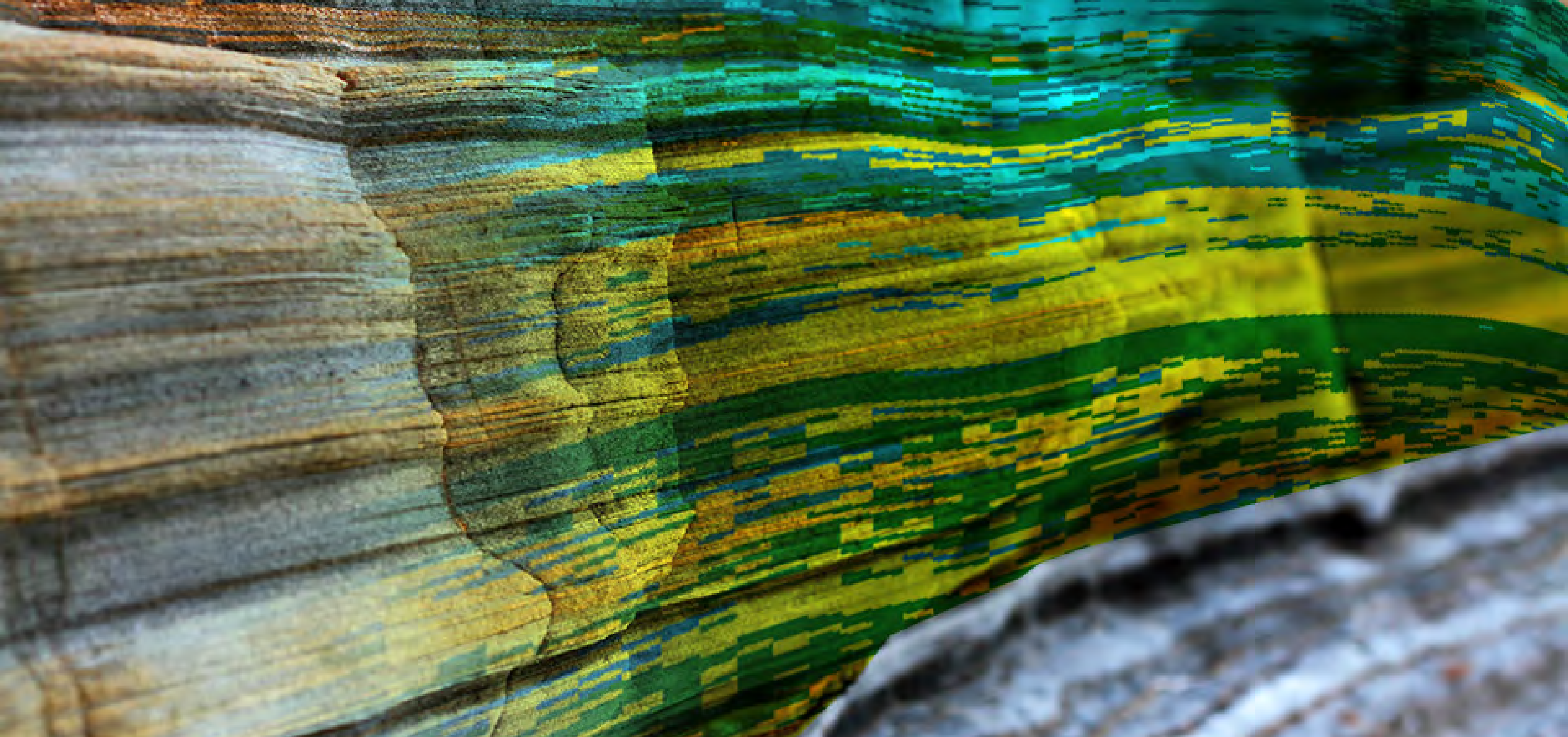
7,900,000 TPA of Olefins Plants

2,760,000 TPA of Poly-Olefins Plants

1,600,000 TPA of Various Petrochemical Products

**Over 4,000 km of Oil/Gas/Products/ Ethylene Pipeline
and the Associated Pumping & Compressor Stations**





NARGAN UPSTREAM MAIN PROJECTS

UPSTREAM

Upstream Integrated Engineering Solutions

Farzad A Gas Field Development - Elemental Sulphur Analysis Study

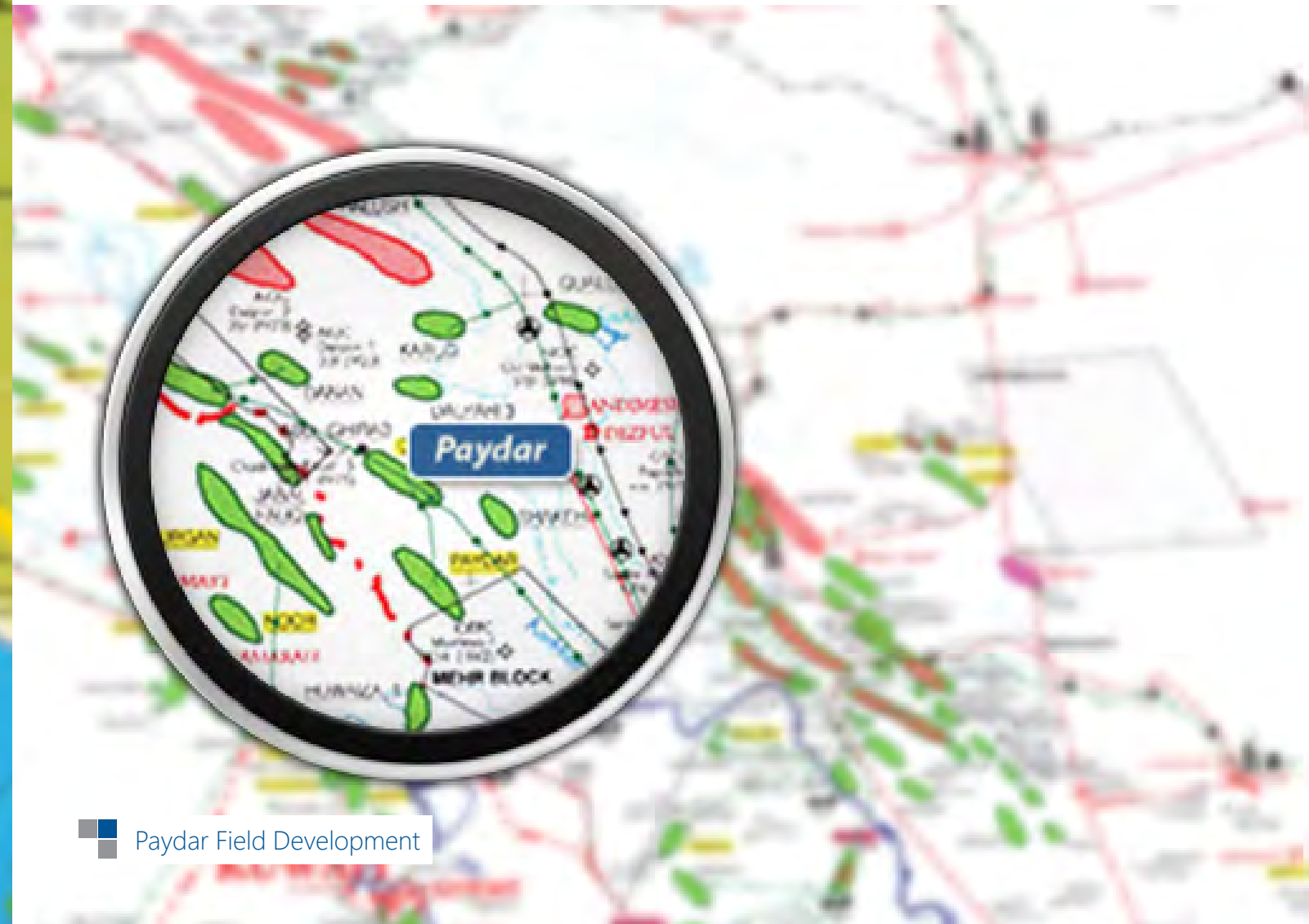
Owner / Client:	Iranian Oil Offshore Company - Petropars
Scope of Works:	<ul style="list-style-type: none"> • PVT Analysis of Gas Samples • Determination of Elemental Sulphur Content • Determination of Elemental Sulphur Solvent • Compatibility of Solvent
Partner:	SGS Gulf (Dubai) & Research Institute of Natural Gas Technology (China)
Contract Award Date / Project Status:	May 2013 / Completed

Paydar Field Development Planning

Owner / Client:	National Iranian Oil Company (NIOC)
Scope of Works:	<ul style="list-style-type: none"> • Review of the Field Studies Report • Preparation of the Static Model of Reservoir • Preparation of the Dynamic Model of Reservoir • History Matching of the Model • Preparation of Production Scenarios & Profiles • Conceptual & Basic Design of Surface Production Facilities • Economic Study & Field Development Planning
Partner:	-
Project Status:	Completed



Farzad A Gas Field Development



Paydar Field Development

Nasr Platform - Sivand, Dena, Alvand, Esfand and Ilam Fields
Nasr Slug/Fluctuating Gas Mitigations

Owner / Client:	Iranian Oil Offshore Company
Scope of Works:	<ul style="list-style-type: none"> • Data Gathering and Data Review • Dynamic simulation • Solution Development
Partner:	Inprocess (Spain)
Contract Award Date / Project Status:	Jan 2018 / Completed

Evaluation Study Project for Smart Water Injection for Selected Offshore Reservoirs in the Persian Gulf

Owner / Client:	Iranian Oil Offshore Company
Scope of Works:	<ul style="list-style-type: none"> • Fast screening of the two candidate fields for smart water • Preliminary reservoir evaluation of Smart Water (to identify the EOR prize) • Laboratory evaluation of Smart Water (water-saturated and oil saturated experiments) • SCAL experiment at reservoir conditions • Evaluation of Smart-Water and preliminary economic evaluation)
Partner:	
Contract Award Date / Project Status:	Jan 2019 / Completed

Evaluation Study Project for Smart Water Injection for Ahwaz-Bangestan Field

Owner / Client:	National Iranian South Oil Company
Scope of Works:	<ul style="list-style-type: none"> • Simulation With focus on sector modeling • Pilot design and monitoring including determination of pilot design success factors • Giving consultancy on Injectivity and injection water compatibility studies • Designing injectivity and compatibility laboratory tests • Determination of injection pressure and flow using REVEAL • Giving consultancy on determination of chemicals for flooding operation • Consultancy on designing smart injection pilot
Partner:	
Contract Award Date / Project Status:	Feb 2020 / Completed



Nasr Platform - Siri Island

Integrated Reservoir Study and MDP of the Hendijan Field

Owner / Client:	Iranian Oil Offshore Company
Scope of Works:	<ul style="list-style-type: none"> • Rock Properties and Fluid/Rock Interactions • Fluid Analysis and PVT Modelling • Well Testing Interpretation • Reservoir Simulation and Modeling • Production History Matching • Forecasting and Production Scenarios • Well Problems Identification and Analysis • Well Modelling • Well Production Enhancement • Network Analysis • New Wells' Analysis • Surface Facilities • Economic Evaluation and MDP Preparation • MDP Preparation
Partner:	S.K.C.E
Contract Award Date / Project Status:	Jan 2019 / In Progres

Sustainable Production Maintenance in South Pars Gas Field Conceptual Study

Owner / Client:	Pars Oil and Gas Company
Scope of Works:	<ul style="list-style-type: none"> • Determination of Tolerable Pressure Drop in Onshore Facilities • Additional Subsea Pipeline Study • Study of Compressor Station at Each Refinery • Study of Onshore Compressor Station Hub in Pars 1 • Study of Onshore Compressor Station Hub in Pars 2 • Compressors Driving Force Study and Financial Evaluation
Partner:	
Contract Award Date / Project Status:	Dec. 2019 / Completed

Sarajeh Gas Storage Reservoir Studies

Owner / Client:	Iranian Gas Engineering and Development Company
Scope of Works:	<ul style="list-style-type: none"> • Reviewing Injection-Production history • Determination of effect of injection pressure on increased capacity • Determination of effect of increased limit for water production rate • Determination of effect of drilling of additional wells • Determination of the subsurface challenges
Partner:	TANA
Contract Award Date / Project Status:	Apr. 2020 / Completed



Conceptual Study and Front End Engineering Design for Foroozan Field Development

Owner / Client: National Iranian Oil Company
Conceptual Study of Foroozan Field Development Plan for Surface Facilities

Scope of Works:

- Site Investigation and Data Gathering
- Determination of Criteria
- Determination of Criteria Weighting
- Scenario Development
- Technology Assessment
- Technical Evaluation
- Risk Evaluation
- Economic Analysis
- Definition of Facilities

Basic Engineering Design, Front End Engineering design, and BID documents Preparation for EPC contract of Gas Transfer from Kharg Island to PGBGT

- Pre-FEED Verification
- Engineering Survey
- Basic/FEED Engineering Deliverables
- HAZOP /HAZID Study
- Incorporation of Health and Environmental Studies
- EPC Tender Package Preparation

Partner:

Contract Award Date / Project Status: Nov. 2020 / In Progress



Provision of Offshore & Onshore Concept Optimization Service FARZAD-B Field Development

Owner / Client:	Petropars Ltd.
Scope of Works:	<p>Concept Optimization (Stage 1) Site Survey at Jackets Location Subsea Pipeline Route Survey Metocean Study</p> <p>Basic Design and FEED Studies (Stage 2)</p> <ul style="list-style-type: none"> • Offshore Facilities • Onshore Facilities • Licensed Units Engineering
Partner:	PT Synergy
Contract Award Date / Project Status:	Feb. 2022 / In Progress

Basic Design Package and Front End Engineering Design Service NORTH PARS Gas Field Development

Owner / Client:	Pars Oil and Gas Company
Scope of Works:	<p>Conceptual Study Verification Offshore Survey Scope Determination and Supervision Basic Design and FEED Services</p> <ul style="list-style-type: none"> • Offshore Facilities • Onshore Facilities • EPC Tender Documentation
Partner:	PT Synergy
Contract Award Date / Project Status:	Mar. 2022 / In Progress

Compression Station Pilot Plant Phase 19 South Pars Basic Design Package and Front End Engineering Design Service

Owner / Client:	Oil Turbo Compressor Construction Company
Scope of Works:	Basic Design and FEED Services
Partner:	-
Contract Award Date / Project Status:	Apr. 2022 / In Progress



NPRTH PARS PLATFORM



Oil Fields Development

Zagros Oil Fields Development (Zagros Mountains; South West of Iran)

Owner / Client:	Sirip Oil Co. & Technip (France)
Scope of Works:	<ul style="list-style-type: none"> • Engineering Design & Procurement Engineering Services • Contract & Construction Tender Documents Preparation
Capacity:	50,000 BPSD Crude Oil
Partners:	Technip & Technaa (Iranian Subsidiary of Technip France)
Contract Award Date / Project Status:	January 1976 / Completed
Contract Award Date / Project Status:	September 2002 / Completed (in Operation)

Jofeir Oil Field Development Project (Khuzestan Province)

Owner / Client:	Clients: Belarusneft (Belarus) & Petroiran Development Company (PEDCO) Owner: Petroleum Engineering & Development Company (PEDEC)
Scope of Works:	<ul style="list-style-type: none"> • Conceptual Study • Engineering Design Services (Basic Design Engineering Package)
Capacity:	25,000 BPSD Crude Oil
Contract Award Date / Project Status:	November 2014 / Completed

Azar Oil Field Development Project (Ilam Province)

Owner / Client:	Hydro Zagros Oil & Gas
Scope of Works:	<ul style="list-style-type: none"> • Engineering Design Services
Capacity:	65,000 BPSD Crude Oil
Partners:	Zamiran (Iran ; for Geology & Soil Investigation Works)
Contract Award Date / Project Status:	January 2006 / Completed

Sirri "C, D & E" Oil Fields Development Projects (Persian Gulf)

Owner / Client:	Sofiran (for C & D Oil Fields) and Iranian Off-Shore Oil Company (IOOC, for E Oil Field)
Scope of Works:	<ul style="list-style-type: none"> • Engineering Design Services (Basic Design Engineering Package)
Capacity:	13,000 BPSD Crude Oil (C & D Oil Fields) 90,000 BPSD Crude Oil (E Oil Field)
Contract Award Date / Project Status:	July 1975 (C & D Oil Fields) and May 1987 (E Oil Field) Completed



Sirri Oil Fields - Nasr Platform

Gas Refinery

Sarkhun II Gas Refinery (Hormuzgan Province) Gas Treatment Plant & Gathering System

Owner / Client:	National Iranian Oil Company (NIOC)
Scope of Work:	<ul style="list-style-type: none"> • Engineering Design & Procurement Engineering Services • Construction Management & Construction Supervision
Products:	14.4 MMNCMD Treated Gas
Subcontractor:	Technipetrol (Italy) for Basic Endorsement
Contract Award Date / Project Status:	June 1980 / Completed (in Operation)



South Pars Gas Field Development (SPGFD)

Phase 12 (Kangan / Assaluyeh) The Largest Industrial Project in Iran

Owner / Client:	Owner: Pars Oil & Gas Company (POGC) Client: Petropars Company
Scope of Work:	<ul style="list-style-type: none"> • Engineering Design & Procurement Engineering Services • Equipment & Material Supply • Construction & Erection Works and Pre-Commissioning Services • Commissioning & Start-up Services and Performance Tests
Products:	81 MMSCMD Treated Gas, 120,000 BPSD Condensate & 750 TPD Sulfur
Plants / Units:	<p>Process Unit: Inlet Facilities Gas Sweetening Unit MEG Regeneration Unit Condensate Stabilization Gas Dehydration / Mercury Guard Unit (Water Dew Point Control) Ethane Recovery Unit Hydrocarbon Dewpointing Unit Mercaptan Removal Unit Export Gas Compression Unit Sulfur Recovery Unit (SRU) Sour Water Stripping Unit (SWS) Back-up Stabilization Unit Propane Refrigeration Unit</p> <p>Utilities & Offsite: Steam Generation & Distribution Instrument Air System Nitrogen Generation Sea Water Intake Polishing Water (Demineralization) Potable Water Effluent Treatment Unit Fire Fighting Cooling Water System Flare System Drain System (Utility & Offsite drains) Burn Pit Sulfur Solidification Unit (SSU) HC Condensate Products Storages Chemical Storage Propane Refrigerant Storage Interconnecting & Sub-Interconnecting Piperacks</p>
Partners:	Tecnimont (Italy); Gamma & Dorriz (Iran, for construction works)
Contract Award Date / Project Status:	January 2010 / Completed (in Operation)

Phase 19 (Kangan/ Assaluyeh)

Owner / Client:	Owner: Pars Oil & Gas Company (POGC) Client: Petropars Iran Company
Scope of Work:	<ul style="list-style-type: none">Engineering Design & Procurement Engineering Services
Products:	50 MMSCMD Treated Gas, 1,000,000 TPA Ethane (C2), 1,100,000 TPA LPG (Propane & Butane), 80,000 BPSD Condensate & 400 TPD Sulfur
Partners:	KT (Italy) & Sazeh (Iran)
Contract Award Date / Project Status:	November 2010 / Completed





International Cooperation

To keep up with the pace of technology, and for effective utilization of specific know-hows in implementation of projects, NARGAN has associated itself with a number of reputable international companies. This has been either through joint venture agreements or on subcontracting basis.

Some of the international companies NARGAN has cooperated with are:

France



United Kingdom



Germany



Italy



Denamrk and Netherlands



Japan



Get in Touch

You can contact us any way that is convenient for you. We are available 24/7 via fax or email. You can also use quick contact form below.

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