



10 YEARS OF SUCCESSFUL OILFIELD OPERATIONS IN TURKMENISTAN

ABOUT US

Yug-Neftegaz Private Limited is a managing company registered in Singapore. It co-ordinates activities of a group of companies providing services in the oil & gas sector of the international market. The key activities of the company are servicing oil & gas wells, including well work-over of any complexity, and providing a full range of geophysical works and prospects, in particular, seismic survey services.

The arrangement of the Yug-Neftegaz Private Limited production activities is based on the results of scientific & research studies related to the development and adoption of the proprietary technologies for the application of new efficient EOR methods. The scientific & research studies are conducted under the leadership of the Honored master of sciences and engineering of Ukraine, Doctor of Technical Science, Professor, Academician of the International Higher Education Academy of Sciences, the Academy of Mining Sciences of Ukraine and the Ukrainian Oil & Gas Academy, the I. Gubkin award winner, Honoured Oil Worker of the USSR and Ukraine Yu. Balakirov.

The leading position in the company's portfolio is held by the projects being implemented for the oil & gas sector of Turkmenistan.

Operations record of Yug-Neftegaz Private Limited in Turkmenistan dates back to 2007 when the pilot contract with the State Concern (SC) "TURKMENNEFT" was signed and successfully performed. Following its implementation, the Contract No. T5-8-265 dd. 01.07.2008 for well servicing and well work-overs likewise for increase in well production capacity at the oilfields of SC "TURKMENNEFT" from 2008 thru 2011 was signed.

Apprehending the importance of challenges and its high responsibility, the Yug-Neftegaz Private Limited staff has successfully coped with the contracted work volume. 136 well operations were carried out promptly and properly, which allowed to produce additionally almost 270,000 tons of the new oil.

The next landmark in the company's activity in Turkmenistan was the execution and implementation of the Contract No. T5-8-397 dd. 17.05.2011. This contract envisaged well work over operations, increase in well production capacity and recovery of SC "TURKMENNEFT" idle stock wells from 2011 to 2017. The result of the obligations fulfilment under this Contract - 1,035 well operations performed and 1,8 MM tons of the additional new oil produced as of 01.08.2017.

Having regard to the results achieved and quality of the works performed by Yug-Neftegaz Private Limited while implementing this Contract, strict compliance with its contractual obligations, Customer-first attitude and prompt response to the Customer's requests, regarding us a reliable partner with an impeccable business reputation, SC "TURKMENNEFT" has arrived at the decision to extend the said Contract for another five years, i.e. thru 2022, while simultaneously expanding the range of services provided by us.

Having at our disposal the most advanced high-tech oilfield machinery & equipment required to meet the production challenges, we however consider our employees to be the most valuable asset. More than 600 Turkmen specialists are employed by the company in Turkmenistan. Their expertise and large practical experience in the oil & gas industry are highly appreciated by the Yug-Neftegaz Private Limited management team. The joint rewarding work of foreign and Turkmen specialists allows us to achieve the targeted production performance figures, thus developing the oil & gas sector of the Turkmenistan economy.

Goturdepe and Barsagelmez oilfields

Keymir and Gamyshlyja oilfields

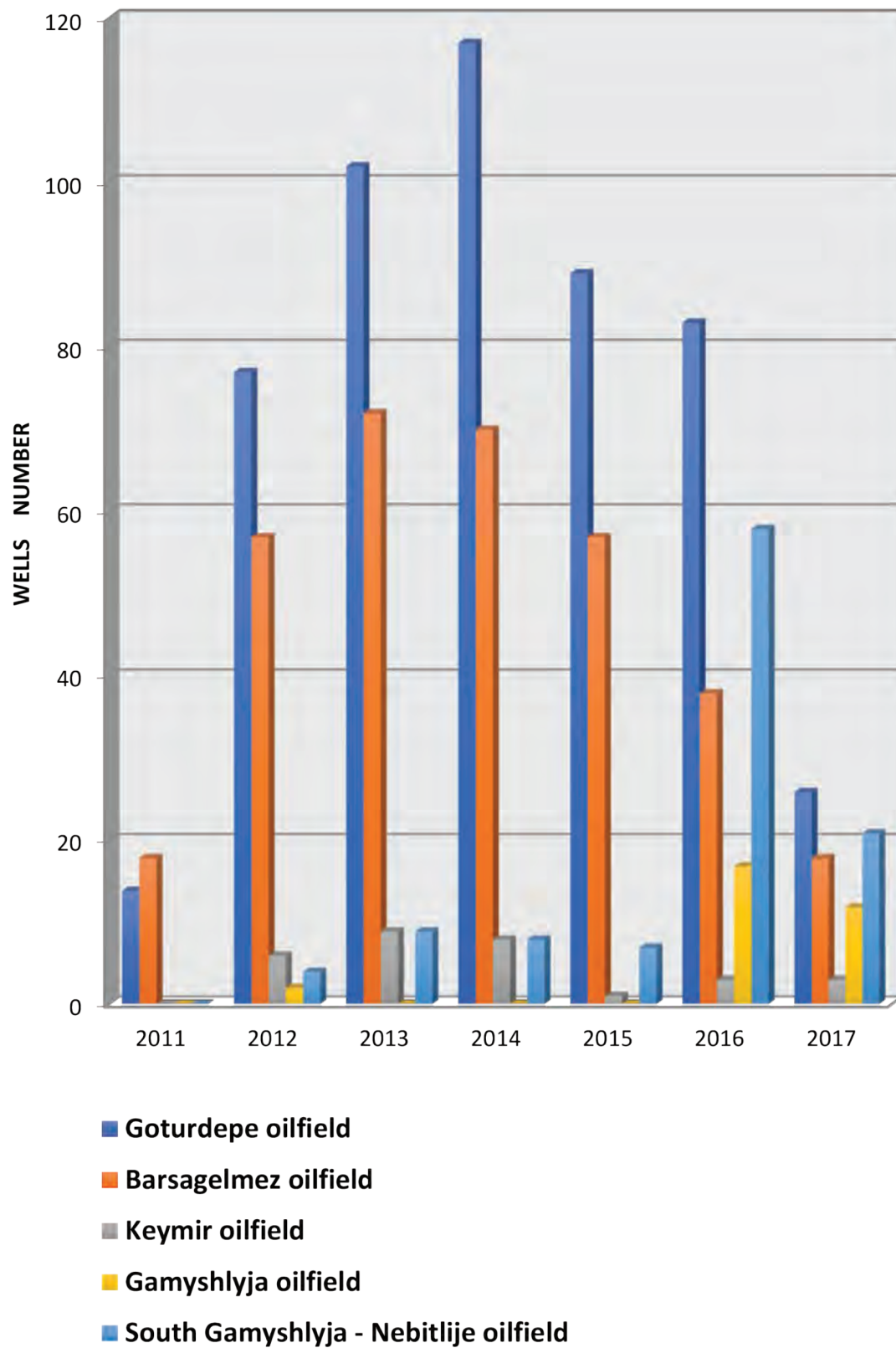


**WE GUARANTEE COMPLIANCE WITH
INTERNATIONAL QUALITY MANAGEMENT,
HEALTH, SAFETY, ENVIRONMENT
AND SAFETY STANDARDS**



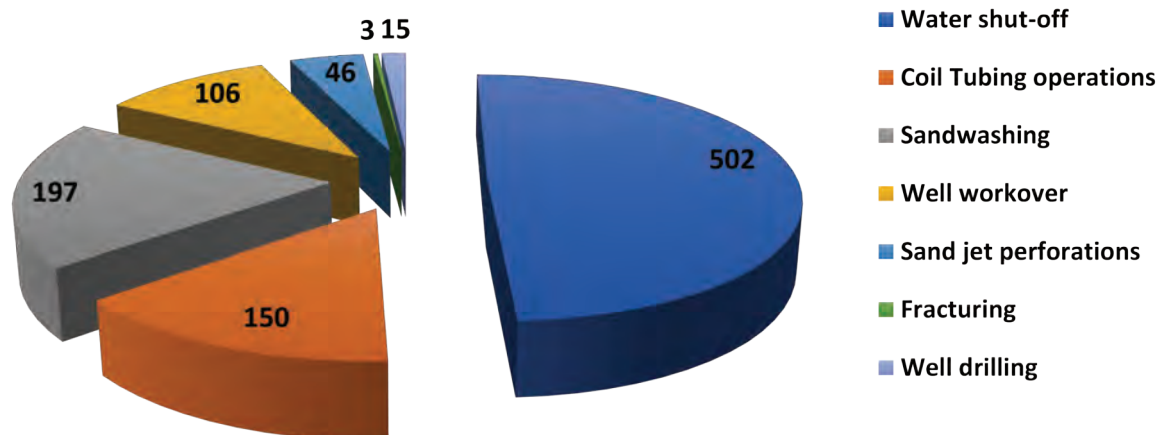
PERFORMANCE RESULTS SUBJECT TO
CALCULATED ON THE BASIS OF 1,035 V

WORKS BREAKDOWN BY YEAR

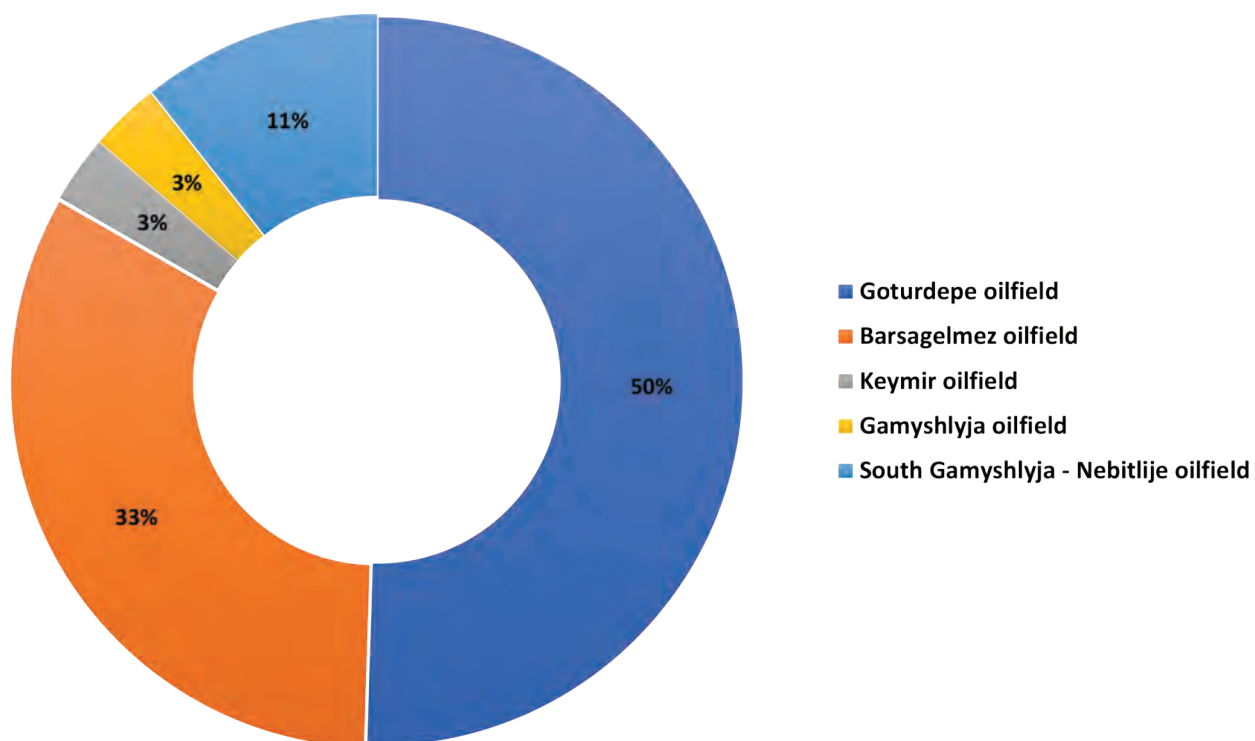


CONTRACT DD. 17.05.2011 № T5-8-397 WELL OPERATIONS

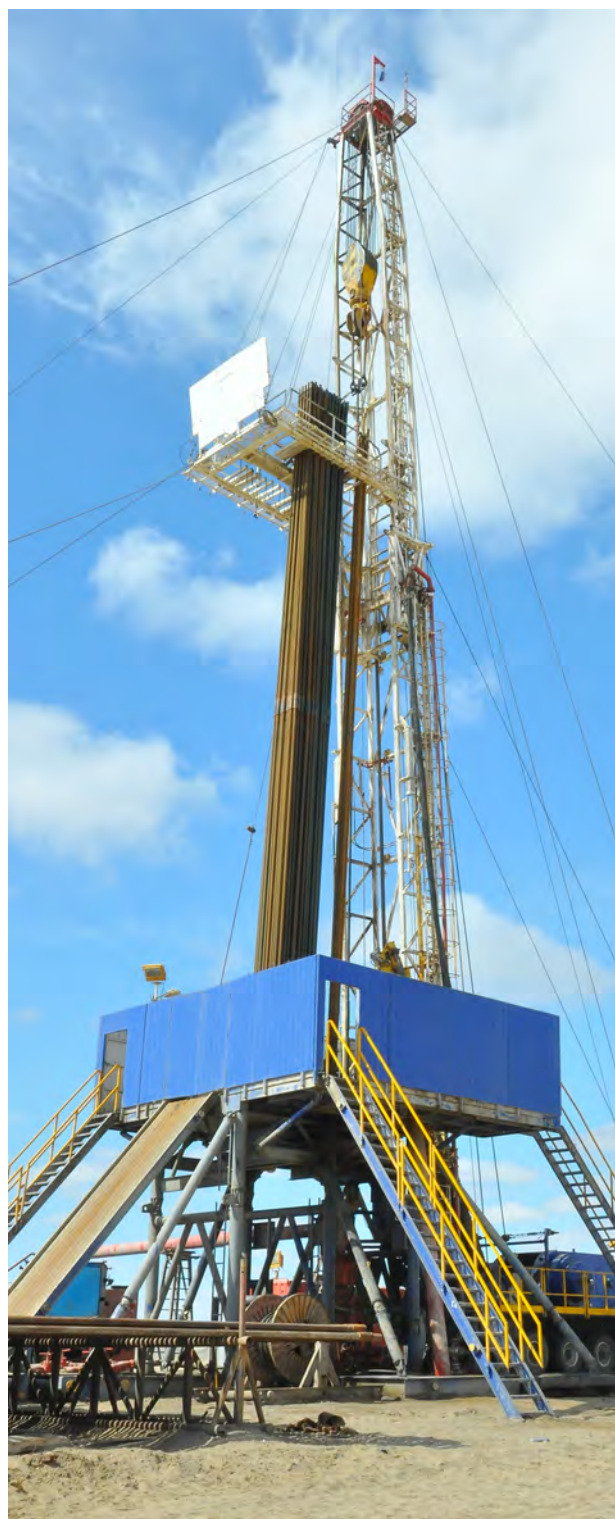
WORKS BREAKDOWN BY OILFIELDS 2011-2017



WORKS BY TYPE 2011-2017



WELL WORK-OVER AND EOR



In order to perform contractual works the company has purchased and delivered in Turkmenistan more than 70 units of the brand-new specialty machinery and motor vehicles.

KEY ON-SITE EQUIPMENT

9 work crews are engaged in well work-over and well servicing operations. They have at their disposal the following key on-site equipment:

- Well work-over rigs (with pulling capacity of 60/80, 100 and 125 tons) - **5** units;
- CT units fleet (coiled tubing length – 5,500 m) - **2** fleets;
- Mobile drill rig for side-tracking (with pulling capacity of 225 tons) - 1 (one) unit;
- Frac fleet (**3** pump units (of 6,750 l/sec. output rate), **1** frac sand blender (of 12 m³/min pump rate), **1** control station, **1** manifold unit, 6 300m³-capacity tanks) - **1** fleet;

In addition, the nitrogen unit (membrane-type) and other specialty equipment: pumping units (320/400/500 MPa), steam truck, hot oiler, truck cranes (with load capacity of 25 to 50 tons), tanker trucks, oil tankers, freight motor vehicles, pipe trucks, etc.



Goturdepe oilfield: Side-tracking by using 225-ton pulling capacity drill rig

WE CARRY OUT THE FOLLOWING OILFIELD OPERATIONS:

WELL DRILLING:

- ▶ Drilling contractor services
- ▶ Directional drilling

COILED TUBING SERVICES:

- ▶ Sand plugs clean out
- ▶ Well kill
- ▶ Completing the well
- ▶ Placing of cement plug
- ▶ Operations with down-hole equipment
- ▶ Cleaning tubing from organic/inorganic deposits
- ▶ Bottom-hole treatment



Goturdepe oilfield: Frac job by employing

BOTTOM-HOLE FORMATION ZONE TREATMENT

- ▣ Acidizing
- ▣ Hydraulic fracturing
- ▣ Sand-jet perforating

WELL WORK-OVER AND WELL SERVICING:

- ▣ Replacement of electric submersible pumps
- ▣ Remedial cementing
- ▣ Tubing replacement
- ▣ Well clean out
- ▣ Well recompletion
- ▣ Production-injection well conversion
- ▣ Well suspension and abandonment
- ▣ Side-tracking and well deepening
- ▣ Casing/liner repair
- ▣ Production casing remedial works
- ▣ Water shut-off/ Water inflow limitation
- ▣ Fishing jobs



g Yug-Neftegaz Private Limited frac fleet



Goturdepe oilfield: Water shut-off jobs by using 80-ton pulling capacity servicing rig



Keymir oilfield: Well acidizing by applying MK30T coiled tubing unit



Barsagelmez oilfield: Sand-jet perforating jobs



Goturdepe oilfield: Well work-over in abnormal well operating conditions by using 125-ton pulling capacity work-over rig



Barsagelmez oilfield: Pumper operation while performing water shut-off jobs

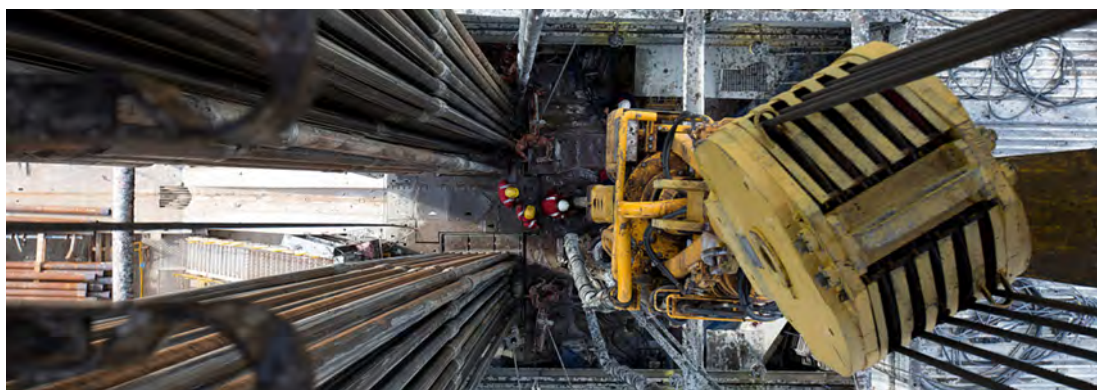


Goturdepe oilfield: CT-conveyed acidizing by employing acid-proof pumper



Barsagelmez oilfield: Well work-over in abnormal well operating conditions by using 225-ton pulling capacity work-over rig

DIRECTIONAL SIDE-TRACKING



Barsagelmez oilfield: Telemetry system-aided side-tracking

The availability of high-tech tooling and equipment for carrying out production assignments is an important criterion for the successful operation of the company when providing directional drilling services. Our team of engineers has long-term experience in drilling various types of wells, including build-and-hold wellbores likewise horizontal and multilateral wells.



Telemetry system equipment packages for directional drilling:
COMPASS (USA) и DrillTek (Canada)

GEOPHYSICAL FIELDWORKS AND PROSPECTS

Another core area of the company's activities is geophysical surveys applying up-to-date equipment and advanced software assets for processing and interpreting seismic data. Package of geophysical services and surveys provides for seismic shooting on-shore, in transition zones, including shallow-water and peat-land seismic surveys.

Currently, Yug-Neftegaz Private Limited implements Contract dd. 07.11.2014 No. TGL-8 providing a full range of 3D surveys at Goturdepe oilfield over an area of 420 km² and Barsagelmez oilfield - 345 km², as well as 2D seismic surveys in the area of Darja peninsula with a total length of seismic lines amounting to 874 linear kilometers.

To date, the company's seismic crew has accomplished 100% of 3D seismic fieldworks within the Northern Goturdepe oilfield and in shallow waters of the Caspian Sea and area adjacent thereto inclusive of the sites of Central and Western Goturdepe oilfield likewise 2D seismic surveys involving land and shallow waters of the Caspian Sea within the Darja bay and the southern flank of Kelkor trough.

The seismic data acquired are then processed and interpreted. 3D seismic survey of the south-western section of the Goturdepe and Barsagelmez oilfields and a site combining these oilfields is underway.



SEISMIC FIELDWORK
STAGES SUBJECT TO CONTRACT
DD. 07.1 1.2014 № TGL-8



● 2015 – 2016: Goturdepe 3D – 420 km²

● 2016 – 2017: Darja 2D – 874 ln. km

● 2017 – Barsagelmez 3D – 345 km²

WHILE IMPLEMENTING THE CONTRACT THE FOLLOWING WORKS ARE PERFORMED:

- ▀ Geophysical fieldworks
- ▀ Processing of seismic data acquired
- ▀ Interpretation of seismic and wellbore data



wireless **SEISMIC**
Real Time Matters



RT System 2



Machinery & equipment for seismic fieldworks



Seismic fieldworks at Goturdepe oilfield



Darja area: Seismic shooting in transition zone by applying pulsed seismic source on a floater towed by dozer (for peat-land operation)



Safety-awareness (HSE) briefing prior to commencement of seismic surveys



Barsagelmez oilfield: Testing and tuning of Radio-Link transmitter-receiver system of RTS2 wireless seismic data acquisition system (manufactured by Wireless Seismic (USA))



Producing of seismic signal by applying updated Nomad 65 NEO vibro-seis sources
(manufactured by Sercel (France))



Barsagelmez oilfield: Planting WRUs of RTS2 wireless seismic data acquisition system
(manufactured by Wireless Seismic (USA))



3D seismic surveys in transition zones within Northern Goturdepe oilfield and in shallow waters of the Caspian Sea and area adjacent thereto inclusive of the sites of Central and Western Goturdepe oilfield



2D seismic surveys involving land and shallow waters of the Caspian Sea



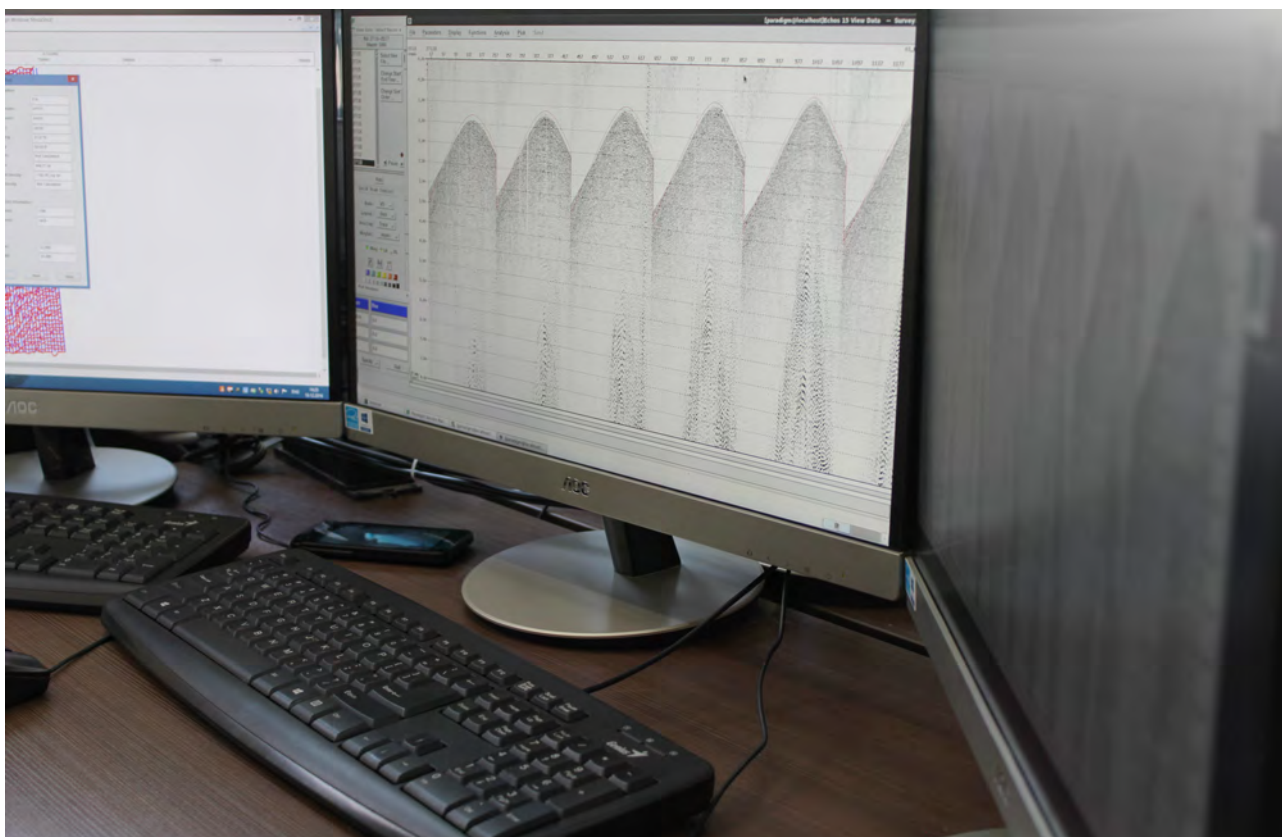
Operation of pulsed seismic source on a floater driven by outboard motors while shooting in shallow waters (to 3m depth)



Caspian Sea within the Darja bay and the southern flank of Kelkor trough.



Acquisition design by using industry-leading GMG Mesa (USA) software



Seismic data processing by employing industry-leading Paradigm Echos (USA) system



Planning of optimum elaboration of seismic design with the use of high-resolution satellite images



Seismic data QC by applying SeisWin-QC (Russia) specialty software package

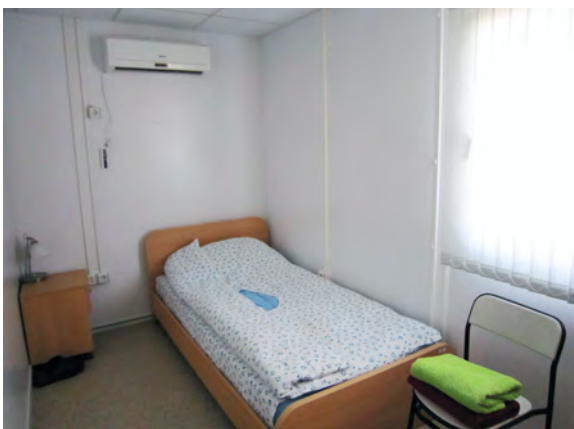
COMPANY'S PRODUCTION FACILITIES

In order to create the proper conditions for planning, managing and ensuring performance of works and contract terms, our company has built **2** production facilities in the Balkan province of Turkmenistan (one – at the Goturdepe oilfield, another – at Okarem settlement at the Keymir oilfield). The said facilities have the required production, warehousing, office, educational, cultural, residential and non-residential premises as well as lifting and automotive vehicles and equipment fitted with the necessary appliances and tooling.

The proper accommodation, board & lodging and entertainment conditions have been created for the company's employees ensuring their daily living and rest.



Production and maintenance facility



Living conditions

SPORTING LIFE

Wellness management of the company's employees is a crucial component of the Yug-Neftegaz Private Limited business culture. Health concern of our employees is our special care.

In June 2017 the company's five-a-side football team took the second place in the tournament among local and foreign teams held in Goturdepe of the Balkan velayat. The tournament was organized and held as part of the nation-wide cultural and sporting events dedicated to the V Asian In-Door Games and Martial arts - "Ashgabat 2017".



OUR PARTNERS

The logo for Jerrell, featuring the word "Jerrell" in a bold, red, italicized sans-serif font.The logo for DrillTek MWD, with "DrillTek" in black and "MWD" in white on a red rectangular background.The logo for JS DFXK, featuring the letters "JS" in large yellow font above "DFXK" in smaller yellow font, both inside a blue oval.The logo for NOV Fidmash, with "NOV" in grey and a red circle, followed by "Fidmash" in blue.The logo for Sercel, featuring the word "Sercel" in a stylized blue font.The logo for Paradigm, featuring a green icon of three curved lines followed by the word "Paradigm" in black.The logo for wireless SEISMIC, with "wireless" in black and "SEISMIC" in red, with a signal icon above "wireless". Below it is the tagline "Real Time Matters".

BRANCH CONTACTS

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