

Innovation

The New Technique and Technology Department (NTTD) was established in August 2015 on the basis of the previously existing new technique and technology division of the oil and gas production department. This Department first tests and then approves the introduction of new types of machinery and oil and gas production technologies implemented for the first time in Embamunaygas JSC, which have high technical and economic characteristics and are well proven in operation in conditions similar to those existing at the Company's fields, whether they are the results of applied developments of research organizations, legal entities and individuals, serial types of machinery and equipment or the introduction of innovation technologies.

The main objectives of the New Technique and Technology Department are:

- ▶ ensuring the fulfillment of tasks for the introduction of new technique and advanced technologies in the field of oil production, well construction and workover;
- ▶ improvement of technological preparation of production.

To ensure sustainable growth of production, it is required to introduce new methods of operation, new production and well drilling technologies for mature fields, as well as to invest time and efforts in modernization of onshore facilities. Much of what is applied in EMG JSC to solve specific technological tasks and problematic issues arising as the fields are operated has been introduced upon the recommendation of the NTTD.

Over the past period, the Department performed:

- ▶ in 2016 – 16 pilot tests were carried out, 10 of which had positive results and were recommended for use in production;
- ▶ in 2006, 13 pilot tests were planned, 8 of which have a positive result, three pilot tests are in progress under monitoring, two pilot tests are negative.

All pilot tests of prototype models of equipment, technical devices and rationalization proposals are carried out according to the test program, which is based on technical conditions developed by the inventors.

Engineers and geologists from oil and gas production departments, specialists of EMG JSC and KazMunayGas Research and Development Institute of Production and Drilling Technology are working together to improve water flooding technology, increase well productivity, reduce the idle well stock and increase the time between overhauls, well cleaning interval and mean time between failures of mechanized extraction systems.

The New Technique and Technology Department is working to increase the profitability of fields under development, which are at the last stages of productive formation exploitation, by applying modern technology and by constant striving to increase economic efficiency and obtain additional production.

