

## AT THE BEGINNING OF GLORIOUS DAYS

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Tomsk Polytechnic University is a very young higher educational institution in its 120 years taking into account that European higher education is over 900 years old and first Russian universities were founded approximately 300 years ago. 2016 is also an anniversary year for the Institute of Natural Resources.

unique event of the 20th century: oil deposits of the West Siberian Plain were initially presumed in the fundamental monograph The Study of Oil by academician Ivan Gubkin who later organized explorations to prove his ideas. However, already in 1920 the possibility of finding oil in this region was predicted by Mikhail Usov, a students and the first professorial scholarship fellow of Vladimir Obruchev, later an academician. Besides, Prof. Mi6khail Korovin, a student and follower of academicians V.A. Obruchev and M.A. Usov, forecasted oil and gas potential of Western Siberia on the basis of its geological structure. Prof. Korovin was one of the first to be awarded the Lenin prize.

Until 1939, geological exploration of Western Siberia was minor and lacked consistency. It was mainly carried out by small teams of experts from the USSR Academy of Sciences, industrial and educational institutions of Central Russia.

The first expendable well was drilled near the Kolpashevo town of Tomsk oblast in 1949.

At that time there were no higher educational institutions to prepare oil and gas specialists east of the Urals. Thus, Department of Fossil Fuels was established at Tomsk Technological Institute by order of its Rector and an outstanding scientist Alexander A. Vorobyov in 1952.

The Faculty of Geological Prospecting vigorously took up the task of equipping and staffing the Department and already in 1956 first students graduated from geology and exploration of oil and gas fields. In 2016, we will celebrate the 60-th anniversary of that graduation.

The Department of Fossil Fuels was headed by Alexander V. Aksarin whose rich life experience made it possible to quickly and efficiently organize the educational process.

Prof. Aksarin undertook two initiatives. Firstly, he focused the department on teaching students the fundamentals of geology, mining, topography and spatial imagination. Fortunately, the Institute and the Faculty had all necessary mineralogical and paleontological collections that were started by the academicians V.A. Obruchev and M.A. Usov. Most importantly, the Faculty hired unique academic staff with deep and diverse knowledge, and great role models for students: legendary Stalin Prize winner K.V. Radugin, G.A. Ivakin, L.L. Halfin, A.G. Sivov, A.G. Bakirov, A.I. Bazhenov, S.S. Ilinok, I.V. Lebedev, A.A. Kurbatov and many others.

Secondly, A.V. Askarin admitted the need of professional knowledge and enlarged the educational program with a long-term industrial placement after the first year following a geological practice at the training ground in Khakassia that was created by professors and students under supervision of G.A. Ivankin.

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Nowadays that training ground has been modernized into Ivankin Center of Geological Practices.

Industrial placement of students was organized in Azerbaijan, Bashkiria, Tatarstan, Orenburg region, and Sakhalin.

That was the beginning of geological training at Tomsk Polytechnic Institute. The first mining engineers graduated from the Department of Fossil Fuels with degrees in geology, prospecting and exploration of oil and gas fields.

At the same time major exploration of oil and gas fields was initiated in Western Siberia with significant contribution of graduates of the Department of Fossil Fuels who discovered deposits in Western and Eastern Siberia, the Far East, Kazakhstan and Tajikistan. Among outstanding geologists of the USSR were N.V. Kopytov, V.G. Eliseev, A.I. Kim, N.E. Nekrasov, G.N. Belyanin, A.I. Obzhirov, V.E. Peshkov, V.P. Mangazeev. TTI graduates Evgraf A. Tepljakov and Anatoly M. Brekhuntsov were at the forefront of discovery and assessment of the world's largest oil and gas fields in Samotlor and Urengoi. Some graduates became professors of the Department. One of them is Lyubim A. Pukhlyakov, a graduate of 1956.

L. A. Pukhlyakov was a remarkable teacher and person. He demonstrated a bright example of how people should fight for their scientific ideas. Prof. Pukhlyakov created a laboratory of deep oil samples that remained the only facility of such kind in Western Siberia. Besides, he was one of the first scientists to study theoretical aspects of designing deviated wells.