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PRESS RELEASE OCTOBER 24, 2013

LUKOIL CONTINUES FIELD STUDIES OF BAZHENOV FORMATION

The Russian innovation fuel and energy company RITEK, a wholly-owned subsidiary of OAO LUKOIL, has begun the field testing of equipment used for oil production from the Bazhenov formation, at the second test site of Sredne-Nazymskoye field located in the Khanty-Mansi Autonomous Okrug-Yugra.

The thermal gas method, which consists in the injection of air-and-water mixture into the reservoir, is used as part of the production process. Atmospheric air, compressed to the required pressure in a compressor unit, then goes to an injector well into which water from an artesian well is also pumped. As a result of interaction between oxygen from the air and hydrocarbons from the reservoir, a spontaneous process of oxidization occurs, generating a gaseous displacement agent of high efficiency.

Application of the thermal gas method leads to changes in the petroleum composition: the share of light fractions rises. In addition, the density and viscosity of the oil drop considerably.

Successful completion of the pilot operations at Sredne-Nazymskoye field, as well as development of new techniques, will raise oil recovery from deposits of the Bazhenov formation. Pilot operations generally constitute a costly and scienceintensive process. Oil production efficiency at the Bazhenov formation may be enhanced through creation of additional economic incentives.