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## Current Status of Enhanced Recovery Techniques in the Fields of Russia

A.N. Shandrygin, SPE, Schlumberger, and A. Lutfullin, State Commission Resources "SCR Rosnedra"

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### Abstract

Russia is one of the main oil producing country in the world with very long history of the oil industry. In one's time in former Soviet Union a lot of attention was paid to oil recovery problems. Unfortunatelly the unfavorable economic climate of the late 1980-s and economic shocks during the period of well-known events in the country in 1990-s caused the rapidly decline of the number of new EOR projects. EOR technologies started to develop in direction of sweep efficiency improvement by cheap agents. Nevethless by now the very interesting EOR experience has been accumulated in the country. It is likely that EOR- produced oil in Russia has not already reached its peak level and that it will increase above the current production rates because of improvement of economic situation in the country on the one hand and increasing of mature fields on the other hand.

The paper presents an overview of EOR field experiences in former Soviet Union and Russia for the last 25 years, an analysis of recent efforts and discusses briefly on perspectives for conventional and new EOR methods. The main EOR experiences reviewed are chemical flooding (and flow diverting technologies in particular), gas injection, thermal recovery process, microbiological and unconventional EOR.

### Introduction

The problem of enhanced oil recovery is particularly pointed in Russia today: for the last 25-30 years the tendency is from slow to steady decline of the oil recovery factors in the fields. In **Fig.1** a dynamics of oil recovery factors over time is presented for the period 1970-2007, derived by averaging the values of oil recovery factors from a significant number of matured fields. The data fields from different regions of Russia had been used for this analysis.

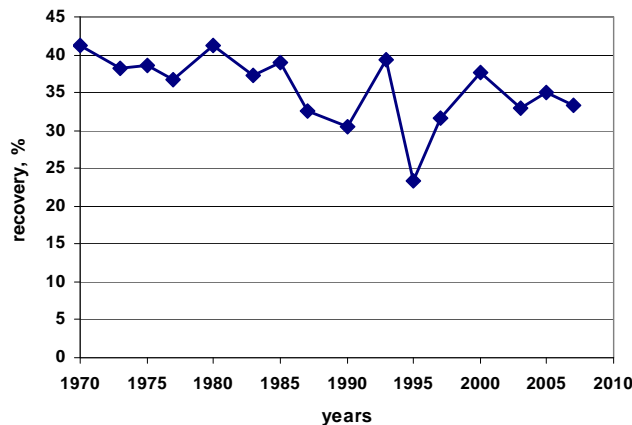


Fig.1 Oil recovery factor dynamics with time in the Russian Federation