INTERNATIONAL CONFERENCE

PROBLEMS OF COMPLEX DEVELOPMENT AND PRODUCTION OF HARD-ACCESSIBLE OILS AND NATURAL BITUMENS (PRODUCTION AND REFINING)

Kazan, Tatarstan, Russia
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МЕЖДУНАРОДНАЯ КОНФЕРЕНЦИЯ

ПРОБЛЕМЫ КОМПЛЕКСНОГО ОСВОЕНИЯ ТРУДНОИЗВЛЕКАЕМЫХ ЗАПАСОВ НЕФТИ И ПРИРОДНЫХ БИТУМОВ (ДОБЫЧА И ПЕРЕРАБОТКА)

Казань, Татарстан, Россия
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Russian Academy of Sciences
Kazan Scientific Centre
Institute of Organic and Physical Chemistry
Power Engineering Department
Academy of Sciences of the Republic of Tatarstan
Cabinet of Ministers of the Republic of Tatrstan
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International Conference

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ABSTRACTS

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Problem of oil resource development includes the aspects of efficiency of hard-to-recover drift raising and improving of active reserve recovery, peculiarities of modern control and deposit recovery reculation method, especially in late stage, and also introduction of secondary and tertiary methods of oil output increasing (OOJ).

Considerable reserves of high viscosity oils and natural bitumen with unique properties raise a question of efficient complex utilization of such raw material as one of actual and most important problems at present.

This collection includes abstracts of reports submitted to conference reflected results of experimental and theoretical investigations in three general directions on this complicated problem:

- output of hard-to-recover oils (exhausted and flooded strata, heavy oils, low-permeable, carbonate and clay collectors);
- recovery of high-viscosity oil deposits and natural bitumens;
- refining of high-viscosity oil and natural bitumens, novel technologies, preparation, method of investigation, composition.

Fundamental stydies and technological solution of formation recovery, oil output increasing, desigh of equipment and facilities, economical problems, investigations of composition, classification and nomenclature of naphthides and novel method of oil component analysis are elucidated in meterial of collection.

Problems of useful production availability including small-capacity of petroleum chemicals are taken into account; schemes of production and refining of oil sources are proposed. Data on geology and reserves of oil and bitumens are presented, an evaluation of various method of producing drilling influenced the stratum are given particular attention is given to problem of heavy oil and oil resudue refining.

This collection is of interest to wide circle of investigators in petroleum chemistry, power engineering, geology, geochemistry, metallurgy, ecology, to engineering and technical workers in petroleum extracting and processingindustries and to other specialists.

Abstracts of reports are arranged in the collection in following order: plenary lectures (PL), extended section oral reports (OR), panel reports (PR) and publications without the are reserve and will be considered in general discussion equally with all other reports at the and of appropriate sessions.

Texst of abstracts are given in author's editing.

AOSTRA,Canadian Asspciation on heavy oils, French petroleum institute, Total, Adgio, Wood Mackenzie, RFFJ participated in Conference preparing.

REPORTS WITHOUT TIME FOR ORAL PRESENTATION (RESERVE REPORTS)

WR-12

ON NOVEL METHOD OF THE EFFICIENCY ESTIMATION OF OIL FIELD DEVELOPMENT AT THE LATE STAGE

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The management of such complicated process as oil field development requires the creating of novel mathematical models which allow to predict the oil perfoumance. In the proposed method four main aspects of the reservoir state are considered - geological, technological, economical and environmental.

The significance of each investigated geological-physical parameters for Romashkinskoe areas is estimated on a basis of the probabilistic - statistical methods. Romashkinskoe areas were grouped by the criterion of Wilkonson as objects of an integral geological-physical structure.

The following parameters were considered for an estimation of efficiency of the reservoir technology: depression; repressuring; density of well pattern; ratio of number of injection wells to number of production wells; average well injectivity.

The level of the above-listed parameters with the production decline rate was estimated from the statical information of 30-years of the Romashkinskoe field development. The economical data were also examined. The economical and enviromental evaluations of development of Romashkinskoe areas were perfomed by using of fuzzy sets theory. The multicriteria of the approach was allowed to outline the complex character of the reservoir working and to investigate the reserve of increasing oil recovery.