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Hydrocarbon traps in triassic sediments the Scythian-Turanian platform in the development areas regional shifts

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Abstract. Based on the analysis of high-precision aeromagnetic survey materials, a map of the fault tectonics of the west of the Turan plate has been compiled. The shear nature of the regional faults of the northeastern strike has been established, the amplitude of horizontal mixing along which reaches tens of kilometers. Many of the faults were active during the formation of the sedimentary cover of the platform, as a result of which characteristic shear deformations containing accumulations of oil and gas were formed. The obtained results can be used in the study of the geological structure of other poorly studied areas of the young platform, as well as contribute to the selection of a rational methodology for geological exploration for oil and gas.

Key words: *fault tectonics, shifts, near-shear dislocations, tangential compression, oil and gas traps*

For citation: V.I. Popkov, I.V. Popkov Lovushki uglevodorodov vieu triasovykh otlozheniyakh Skifsko-Turanskoy platform vieu rayonach razvitiya regionalism sdvigov [Hydrocarbon traps in triassic sediments the Scythian-Turanian platform in the development areas regional shifts]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 1-26. DOI https://doi.org/10.25689/NP.2025.1.1-26. EDN BGUIKI (in Russian)

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EDN FBXRIR

УДК 553.98(470.56)

On the issue of the potential of the kosvinsk-radaevsky deposits of the Mukhanovo-Erokhov trough of the Orenburg region

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Abstract. The issue of the need for in-depth regional work in the section of terrigenous-clay Kosvinsky-Radaevsky deposits in the central part of the Mukhanovo-Yerokhov trough of the Buzuluk depression was raised. This part of the Orenburg Region has long remained the least studied, despite the fact that there are open deposits within its boundaries and the potential of these deposits has not yet been sufficiently disclosed. General data on the features of sedimentation and tectonic structure of the area are presented, which will draw the attention of subsoil users in the region to the need for additional studies of the Kosvinsky-Radaevsky deposits in order to search for new hydrocarbon deposits.

Key words: *Mukhanovo-Erokhov trough, kosvinsk-radaevsky deposits, lineaments*

For citation: V.I. Sobolev, V.V. Siletskaya K voprosu potentsiala kos'vinsko-radayevskikh otlozheniy Mukhanovo-Yerokhovskogo progiba Orenburgskoy oblasti [On the issue of the potential of the kosvinsk-radaevsky deposits of the Mukhanovo-Erokhov trough of the Orenburg region]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 27-39. DOI https://doi.org/10.25689/NP.2025.1.27-39. EDN FBXRIR (in Russian)

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EDN HLBEHS

УДК 550.8:553.98(430.43)

Additional exploration and development of a shallow oil field in the Samara region

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Abstract. The main purpose of this work is to further explore the oil field under development, to increase oil reserves categorization and to optimize the field development. Within the framework of this work, the option of drilling an advanced production well as an exploratory well is considered in detail and the effect of this drilling is evaluated. The work also proposes a set of measures and research works for more successful subsequent development of the field. The proposed scenario of additional exploration will make it possible to study in a short time the peculiarities of the geological structure of hydrocarbon deposits, clarify the geological and physical characteristics of reservoirs and reservoir fluids, as well as improve the quality of preparation of reserves for development. Putting the exploration well into operation will optimize the production of oil reserves, improve the field development system and increase the economic effect.

Key words: *additional exploration, reserve categories, exploration well, vereysky horizon, bashkirian stage*

For citation: D.A. Yunusova, R.G. Lukyanova Dorazvedka mestorogdeniya X i rekomendacy po dalneyshemu osvoenyu [Additional exploration and development of a shallow oil field in the Samara region]. Neft Neftyanaya Provintsiya, No. 1(41), 2025. pp. 40-53. DOI https://doi.org/10.25689/NP.2025.1.40-53. EDN HLBEHS (in Russian)

DOI: https://doi.org/10.25689/NP.2025.1.54-95

EDN JDFRDA

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Petrophysical characteristics of productive horizons of the Jurassic carbonate formation in the central part of the Chardzhou stage (Republic of Uzbekistan)

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Abstract. The results of studying the petrophysical properties of reservoir rocks selected from deep wells that exposed deposits of carbonate formation of Middle-Upper Jurassic age in the territory of the Central part of the Chardzhou step within the Ispanly-Chandyr, Kultak uplifts and Kushab trough are considered. The article presents data from a comprehensive analysis of the results of studying the petrophysical characteristics of reservoir rocks studied from well cores using lithological-stratigraphic and petrographic parameters of carbonate rocks. On this basis, the filtration-capacitive potential of rocks, the boundary values of reservoirs of productive sediments in the territory under consideration were substantiated, and a map of predictive directions of changes in the boundary values of the filtration-capacitive properties of carbonate rocks was constructed.

Key words: *carbonate formation, Jurassic, limestone, reservoir, seal, petrophysics, porosity, permeability, boundary values*

For citation: K.M. Tokareva, G.B. Evseeva Petrofizicheskaya harakteristika produktivnih gorizontov karbonatnoy formatsii yurskogo vozrasta na tsentralnoy chasti Chardjouskoy stupeni (Respublika Uzbekistan) [Petrophysical characteristics of productive horizons of the Jurassic carbonate formation in the central part of the Chardzhou stage (Republic of Uzbekistan)]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 54-95. DOI https://doi.org/10.25689/NP.2025.1.54-95. EDN JDFRDA (in Russian)

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EDN JGEWXM

УДК 622.276.031

Retrospective analysis of the geological study of oil deposits in a carbonate reservoir in order to identify objects for further exploration and development

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Abstract. The article studies an oil deposit in the carbonate dankov-lebedyansk sediments of the oil field, which are characterized by reduced productivity compared to the lower lying terrigenous Upper and Middle Devonian sediments. The dankov-lebedyansk sediments were sporadically studied during active development of highly productive reservoirs, which explains their low geological study. In the conditions of depletion of the main exploitation object, the relevance of additional study of the deposit in the dankov-lebedyansk horizon is undoubted. The data on the geological study of the deposit, including core materials, open and closed hole logging, sampling, testing and development data are summarized. It is proved that the reservoir is understudied and it is established that structural and lithological factors are determinant in the spatial distribution of oil-bearing capacity in the reservoir. In wells previously drilled for the main production object for final confirmation of oil-bearing capacity of the proposed promising intervals before stripping and sampling are recommended research by neutron generator and carbon oxygen logging. If oil-bearing capacity is confirmed, a set of measures is justified to involve the identified oil-bearing intervals and reservoirs into development with sidetracking and horizontal drilling, hydraulic fracturing, acid treatments, simultaneous separate exploitation and other methods recognized as the most effective in carbonate rocks.

Key words: *logging, test tool set, pulsed neutron generator, carbon-oxygen logging, filtration capacitance properties, drill core sampler, well geologic results, horizontal borehole drilling*

For citation: Y.I. Kharochkin, P.A. Ivanov, R.N. Burkhanov Retrospektivnyj analiz geologicheskoj izuchennosti zalezhi nefti v karbonatnom rezervuare s cel'yu vyyavleniya ob"ektov dlya doizucheniya i osvoeniya [Retrospective analysis of the geological study of oil deposits in a carbonate reservoir in order to identify objects for further exploration and development]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 96-111. DOI https://doi.org/10.25689/NP.2025.1.96-111. EDN JGEWXM (in Russian)

DOI: https://doi.org/10.25689/NP.2025.1.112-119

EDN KRUFVV

УДК 550.8:553.98

Algorithms for selecting geological and technological events to involve missed oil deposits in development

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Abstract. At the late stage of oil field development, the structure and composition of residual reserves deteriorate for geological and technological reasons. A significant part of these reserves is concentrated in missed deposits and reservoirs. Field geophysical, hydrodynamic, seismic and lithological-facial studies and modeling help to determine the location of such deposits. For fields with a long history of development, high water cut, worn-out and low-yield well stock, it is especially important to develop an inexpensive and simple method or an integrated approach to identify and localize missed deposits. It is also necessary to develop a set of geological and technical measures to bring these reserves into development. The authors of the report proposed a retrospective analysis to identify missed oil deposits in the Upper and Lower Devonian sediments of the field, which has been developed since 1952, for which they proposed an algorithm for selecting effective geological and technical measures for their involvement in development.

Key words: *residual reserves, oil field, missed deposit, algorithm, category, logging, oil saturated reservoir, geological and technical event*

For citation: P.A. Ivanov, Ya.I. Kharochkin, R.N. Burkhanov Algoritm podbora geologo-tekhnologicheskih meropriyatij po vovlecheniyu v razrabotku propushchennoj zalezhi nefti [Algorithms for selecting geological and technological events to involve missed oil deposits in development]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 112-119. DOI https://doi.org/10.25689/NP.2025.1.112-119. EDN KRUFVV (in Russian)

DOI: https://doi.org/10.25689/NP.2025.1.120-135

EDN LGPVNL

УДК 550.8

Improving the efficiency of geological support of drilling in tectonically active zones

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Abstract. As is known, the main advantage of horizontal wells, in comparison with vertical ones, is an increase in flow rate due to the expansion of the drainage area and an increase in the filtration area [2].

There are a number of uncertainties and risks when drilling GS. One of these factors is the presence of faults in the area of the borehole wiring. In the presented work, examples of difficulties encountered related to tectonic disturbances and ways to solve them in the process of maintaining horizontal wells are considered.

Today, seismic exploration is actively used not only to optimize field development, but also to accompany drilling. This article describes options for using seismic data to minimize the risk of drilling in tectonically active areas, because faults can affect both the efficiency of drilling and the subsequent operation of the well.

Key words: *horizontal well, faults, risks and uncertainties, geological model*

For citation: K.V. Konstantinov, E.I. Lapina, A.N. Radionov Povyshenie effektivnosti geologicheskogo soprovozhdeniya bureniya v tektonicheski aktivnyh zonah [Improving the efficiency of geological support of drilling in tectonically active zones]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 120-135. DOI https://doi.org/10.25689/NP.2025.1.120-135. EDN LGPVNL (in Russian)

DOI: https://doi.org/10.25689/NP.2025.1.136-150

EDN MTSWWA

УДК 622.276.1/.4:55

Field-Geological reasoning to increase and regulate the production of residual oil reserves

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Abstract. This article presents the results of a detailed geological and economic analysis of measures to increase and optimize the extraction of residual oil reserves, using one of the oil and gas fields in the Volga-Ural region as an example. The study shows that the field under investigation is undergoing long-term development, and its reservoir pressure maintenance system is becoming less efficient. One of the ways to improve the current development strategy and maximize the extraction of remaining reserves without significant capital investment is through the use of non-steady (cyclic) waterflooding technology. The article discusses a number of geological and technical factors that need to be considered when selecting a promising site for implementing this technology. For this purpose, maps have been constructed that show the layer-by-layer heterogeneity of the formations in terms of their filtration and reservoir properties. These maps also include information about the current reservoir pressure, the residual recoverable and mobile oil reserves, as well as the undrained reserves that can be accessed by the current development system. Analysis of these maps has allowed us to select a reservoir site that has a significant density of undrained reserves and a high degree of layer-by-layer heterogeneity. Additionally, the energy condition of the reservoir is satisfactory. In order to assess the impact of injection wells on the producing wells within the selected reservoir, we have calculated well interaction coefficients. These coefficients indicate that the area we have chosen is characterized by the lowest level of interaction, which means that it requires adjustments to the flooding system. Various options for non-stationary flooding have been considered in order to optimize the process and maximize oil production from the selected area. It is proposed to develop the considered section of the reservoir during non-stationary flooding using a scheme of alternating injection well switching, which consists of various geometric shapes. One cycle lasts 28 calendar days, while a half-cycle, separated by operating modes, lasts 14 days. An assessment of the technological efficiency of the recommended measures has been conducted. It has been noted that regulating the operating modes of production wells will allow for additional oil production and the involvement of undeveloped reserves by redistributing filtration flows across the area and thickness of the reservoir.

Key words: *unsteady flooding, reservoir pressure, residual oil reserves, injection well, reservoir, injection, technological parameters, efficiency*

For citation: A.A. Makhmutov, R.U. Rabaev, A.M. Malyarenko, M.A. Fokin Geologo-promyslovoye obosnovaniye meropriyatiy po povysheniyu i regulirovaniyu vyrabotki ostatoch-nykh zapasov nefti [Field-Geological reasoning to increase and regulate the production of residual oil reserves]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 136-150. DOI https://doi.org/10.25689/NP.2025.1.136-150. EDN MTSWWA (in Russian)

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EDN OWQXYY

УДК 622.276.342

The well fund structure influence on the oil reserves production efficiency

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Abstract. The article evaluates the optimal quantitative parameters of the wells distribution by categories in the context of their impact on the reserves multiplicity as an indicator of the reserve production efficiency for drilled fields of the KhMAO. The necessity of maintaining the majority of drilled wells in the existing fund is justified. An assessment of the recommended share in the fund of inactive, control and liquidated wells has been carried out.

Key words: *multiplicity of reserves, well fund, active fund, inactive fund, control fund, conservation fund, liquidated fund*

For citation: T.N. Pechyorin Vliyanie struktury fonda skvazhin na effektivnost' vyrabotki zapasov nefti [The well fund structure influence on the oil reserves production efficiency]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 151-160. DOI https://doi.org/10.25689/NP.2025.1.151-160. EDN OWQXYY (in Russian)

DOI: https://doi.org/10.25689/NP.2025.1.161-176

EDN PALTNW

УДК 622.276.1/.4.001.57

Application of hydrodynamic modeling for designing the development of oilfield

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Abstract. The process of adaptation of the hydrodynamic model of the field is the most important element for optimization of hydrocarbon resources development. This paper describes the adaptation of oil field objects, which includes the analysis of existing data on the geological structure, hydrodynamic characteristics and operational parameters of the field, which allows more accurate prediction of the dynamics of field development, contributes to the increase in the efficiency of hydrocarbon extraction and the reduction of risks associated with operation. This article compares the results of adaptation of the Tournaisian stage and Vereisk horizon of the oil field, obtained during hydrodynamic modeling (HDM), to the parameters and reserves of the geological model (GM), a comparison of the calculated parameters and reserves of hydrocarbon raw materials of the hydrodynamic model (HCR HDM) and those submitted for approval of the state balance (GB). Also, using the models of two objects, maps of the densities of mass mobile oil reserves were constructed for each object represented in this field. The main attention is paid to the geological and physical characteristics of the field, the stages of data preparation for the creation of the model, the methods of adaptation of the model, the problems that have arisen, as well as the assessment of its accuracy and reliability in predicting the behavior of fluids in the reservoir for the further construction of a forecast for the development of the field.

Key words: *hydrodynamic model, adaptation of the hydrodynamic model, field development, development options, development project, tNavigator, hydrodynamic model forecast, maps of mass mobile reserves*

For citation: D.A. Savelev, A.M. Zhuk, V.A. Sayakhov, I.I. Bakirov, R.R. Giniyatullin, I.A. Popova Primenenie gidrodinamicheskogo modelirovaniya dlya proektirovaniya razrabotki neftyanogo mestorozhdeniya [Application of hydrodynamic modeling for designing the development of oilfield]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 161-176. DOI https://doi.org/10.25689/NP.2025.1.161-176. EDN PALTNW (in Russian)

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EDN PTWQNU

УДК 622.248.35

Analyzing effect of oil reservoir drive mechanisms on well kick problems

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Abstract. Well workover operations are often accompanied by unwanted events such as well kicks. A well kick is defined as an uncontrolled release of gas, oil or water to the surface through leaky threaded connections and damages resulting from loss of wellbore integrity during well operation.

PJSC TATNEFT operates production and injection wells drilled through multiple zones and equipped with single- and dual-string downhole assemblies. According to the Federal Rules and Regulations for Industrial Safety, a blowout preventer (BOP) shall be installed at the wellhead in such wells prior to workover operations to provide reliable wellhead sealing in case of a blowout during tripping long or short pipe strings.

There are several reservoir drive mechanisms that can cause well kicks, including water drive, elastic water drive, solution gas drive, gas drive, and gravity drive. All of them are associated with low to high risks of well kicks, with some reservoir drives requiring wellhead sealing (with BOP installation) when performing pipe tripping during well operation and workover.

Key words: *well kick, oil reservoir drive mechanisms, wellhead sealing, blowout preventer, well control hazards*

For citation: R.Z. Ziyatdinov, V.M. Valovsky, K.M. Garifov Ocenka vliyaniya rezhimov raboty neftyanyh zalezhej na gazovodonefteproyavleniya [Analyzing effect of oil reservoir drive mechanisms on well kick problems]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 177-184. DOI https://doi.org/10.25689/NP.2025.1.177-184. EDN PTWQNU (in Russian)

DOI: https://doi.org/10.25689/NP.2025.1.185-194

EDN QKWNFF

УДК 665.622.43.066.6

Research of the demulsifiers in order to increase the efficiency of oil production in carbonate reservoirs

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Abstract. The article presents the results of laboratory studies to determine the efficiency of demulsifiers using artificial water-in-oil emulsions with oil from the Tournaisian stage of the Lower Carboniferous as an example. As a result of comparing the two reagents, it was found that the demulsifier based on nonionic surfactants (NIS) DE-1 was the most efficient for these samples. It differs from the reagent with NIS (DE-2) in its lower specific consumption, solubility in both water and oil, which allows it to be used in direct and inverse emulsions, and the absence of reaction with salts and acids. The issue of further studying the efficiency of demulsifiers for breaking emulsions remains relevant, since various complications often arise at the final stages of development, which can be prevented with the help of laboratory studies.

Key words: *water-in-oil emulsion, oil, demulsifier, emulsion stability, surface-active substance (surfactant), dehydration, microscopic studies, complications of oil production, oil emulsification, dispersity*

For citation: N.R. Gazizov Issledovaniye deemul'gatorov s tsel'yu povysheniya effektivnosti dobychi nefti v karbonatnykh kollektorakh [Research of the demulsifiers in order to increase the efficiency of oil production in carbonate reservoirs]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 185-194. DOI https://doi.org/10.25689/NP.2025.1.185-194. EDN QKWNFF (in Russian)

DOI: https://doi.org/10.25689/NP.2025.1.195-203

EDN QMFSNT

УДК 665.622.43.066.6

Analysis of the efficiency of using demulsifiers for breaking water-oil emulsions

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Abstract. This work addresses one of the pressing issues in oil production — the formation of water-oil emulsions. Currently, there are various methods of dealing with them. The most common is the chemical method, which consists in the use of demulsifiers. The effectiveness of this method depends on the selection of the most optimal and cost-effective reagent. In the course of laboratory studies of various types of demulsifiers, it was found that a water-soluble demulsifier is more effective at destroying highly hydrated emulsions. The results are confirmed by experimental data and statistical calculations.

Key words: *water-oil emulsion, oil, demulsifier, surfactants, demulsification, intermediate layer, technological efficiency, protective shell, globules of water, stability of the emulsion*

For citation: K.M. Ismagilova Analiz effektivnosti primeneniya deemulgatorov dlya razrusheniya vodoneftyanykh emulsiy [Analysis of the efficiency of using demulsifiers for breaking water-oil emulsions]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 195-203. DOI https://doi.org/10.25689/NP.2025.1.195-203. EDN QMFSNT (in Russian)

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EDN THNUVY

УДК 622.276.61

The design of the sedimentative polymer solution is based on industrial by-products

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Abstract. This paper presents the results of the study of sedimentation stability of polymer-dispersed systems (PDS) based on acrylamide and chemical industry waste, developed to regulate filtration flows in heterogeneous terrigenous reservoirs and increase waterflood coverage ratio. The aim of the work is to determine the most stable polymer-disperse system in time. Within the framework of the experiments the following tasks were performed: conversion of technogenic waste into non-toxic form and grinding to powdery state; preparation of aqueous solutions of acrylic polymers of different molecular weights and ionic charges; visual control of the prepared polymer-disperse systems during 24 hours by video recording; analysis of the obtained results. From the experimental results, it was found that polymer-dispersed systems based on anionic polymers with higher molecular weight have the highest sedimentation stability. However, the solution based on DP-9 polymer with high molecular weight is not sedimentation stable. Thus, the sedimentation stability depends on the set of properties of the polymer used, namely its molecular weight, type and charge density of molecules.

Key words: *sedimentation stability, polymer solution, conformance factor, regulation of filtration flows, residual reserves, non-Newtonian fluid, catalytic slurry*

For citation: I.R. Raupov, J.A. Sytnik, D.V. Ilin, I.N. Pyagay, M.A. Zubakina Razrabotka sedimentacionno-ustojchivogo polimernogo so-stava na osnove promyshlennogo othoda [The design of the sedimentative polymer solution is based on in-dustrial by-products]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 204-226. DOI https://doi.org/10.25689/NP.2025.1.204-226. EDN THNUVY (in Russian)

DOI: https://doi.org/10.25689/NP.2025.1.227-245

EDN UIQPMS

УДК 622.245.42

About the possibility of carrying out the process of cementing a production string with rotation

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Abstract. The article evaluates the possibility of performing cementing with rotation of production strings on the Caspian Sea shelf due to the fact that this method of improving the quality of cementing allows increasing the efficiency of the process of replacing drilling mud with cement slurry.

A typical well design at the Yu. Korchagin field was considered. The characteristics of the production string and top drive system were used for the calculation. Strength calculations were performed using the analytical method according to the third energy theory of strength with an assessment of the resulting stresses for the casing string in the wellhead section of the well, as well as the Drilling Design software package of Bursoftproekt LLC and the RN-Drilling Calculations software package of Rosneft PJSC. A comparative analysis of the obtained strength calculation results is performed. A typical well design at the Yu. Korchagin field was considered. The characteristics of the production string and top drive system were used for the calculation.

The obtained values of the safety factors for torque and resulting stresses satisfy the standard safety factors, which allows cementing with rotation of the casing string. It has been determined that several options for determining torque and calculating the strength of casing columns are currently used. These methods, presented in various regulatory documents of service companies, differ and require harmonization with a single standard.

Key words: *cementing operation, cementing quality control, casing string reciprocation, structural analysis, casing string, shelf, The Caspian Sea*

For citation: V.V. Prohorov, S.E. Chernyshov O vozmozhnosti provedeniya processa cementirovaniya ekspluatacionnoj kolonny s vrashcheniem [About the possibility of carrying out the process of cementing a production string with rotation]. Neftyanaya Provintsiya, No. 1(41), 2025. pp. 227-245. DOI https://doi.org/10.25689/NP.2025.1.227-245. EDN UIQPMS (in Russian)

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EDN WGVQOW

УДК 665.666.002.8

Efficient oil sludge separation using combined technology

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Abstract. Enterprises of the fuel and energy complex of the Russian Federation are major sources of harmful emissions into the atmosphere (47,2 %), discharges of polluted wastewater (26,8 %), solid waste (over 32 %), greenhouse gases (up to 69 %).

Oil sludge (so-called oil sludge) poses a special danger among oil wastes that have a detrimental impact on the components of the natural environment, in particular, surface and underground waters, soil and vegetation cover, atmospheric air. These are complex physical and chemical mixtures, which belong to wastes of III and/or IV hazard classes [1, 2, 3] and consist of hydrocarbons, mechanical impurities (clays, metal oxides, sand) and water.

At present millions of tons of oil sludge are accumulated at the enterprises of oil producing, oil refining and petrochemical industries.

They are generated, as a rule, during wastewater treatment, in the water recycling system, during construction of wells for hydrocarbon production, preparation of oil for transportation and processing, during equipment repair, tank cleaning, as well as in all kinds of accidents (spills).

According to some scientists [4], the total amount of oil sludge generated at the enterprises of the Russian oil industry per year is up to 500 thousand tons, and the resources of these wastes, located in earth pits, are estimated at 4,5 million tons, which is an extremely negative factor that has a significant impact on the environment. That is why the issues of treatment, utilization.

Key words: *oil sludge, solid waste, drilling, ecology, pollution, oil sludge treatment, utilization, oil waste*

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Selection and justification of the effectiveness of fluids for silencing wells in the conditions of the Khamakinsky horizon (Eastern Siberia)

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Abstract. The article presents options for selecting the damming fluid for wells drilled into the Khamakinsky horizon (reservoir B_{10}), characterized by a wide range of reservoir types, the presence of uneven salinity zones, zones with double porosity, and abnormally low reservoir temperatures and pressures. In this regard, an urgent task is to select the optimal formulation of jamming fluids based on various types of research, both analytical, laboratory, and pilot-industrial.

The article considers a set of laboratory studies to assess the effect of basic salt solutions, salt solutions with additives of surfactant compositions, and hydrocarbon-based solutions on reservoir permeability. According to the results of laboratory studies of the filtration properties of the B_{10} formation, positive parameters of well damping using hydrocarbon-based solutions and a significant negative effect of water-based solutions on the reservoir's filtration properties were noted. Field tests of hydrocarbon-based solutions based on reverse emulsions as a silencing fluid at eight wells have confirmed the effectiveness of this type of solution. In combination with the geological and technical measures for gas dynamic fracturing at wells, it was possible to achieve an increase in the productivity coefficient of wells from an average of 0.2 m3/day at to 0.78 m3/day at.

Key words: *well killing fluid, laboratory tests, core, khamakinsky horizon, hydrocarbon based solutions*

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