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RESEARCH ON THE PRODUCTION OF LIQUID HYDROCARBONS BY LOW-PRESSURE AND FLARED GAS UTILIZATION

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Abstract:
Our republic's extensive work in the engineering and chemical industry demands the acceleration of production and export of gas-liquid fuel and chemical products. In connection with the rapid development of the petrochemical industry, the use of new technologies in the prevention and recovery of the loss of light hydrocarbons in oil and gas is one of the important issues in creating a solid and cost-effective base of raw materials.

Keywords: light oil, natural gas, raw materials, liquid fuel, engineering and chemical industry, synthetic liquid, petrochemical industry.

Introduction

As soon as our country gained its independence, it successfully implemented several systematic and consistent measures to achieve "energy independence". At present, based on the tasks and requirements of the new stages of the socio-economic development of the republic, a number of measures are being implemented in order to reduce the consumption of fuel energy resources and introduce energy-saving technologies. In particular, great importance is attached to the development of alternative sources of energy.

The President of the Republic of Uzbekistan, I.A. Karimov, in his speech at the meeting of the Cabinet of Ministers on the results of socio-economic development of our country in 2015 and the most important priorities of the economic program for 2016, said "Our main goal is to implement the ongoing reforms, In his report on the topic of "continuing structural changes in our economy, moving forward at the expense of opening a wider path to private ownership, small business and entrepreneurship", we all need to understand well that without diversifying production, entering foreign markets and selling our products it is impossible to talk about the implementation of the export program, the provision of foreign exchange earnings, the creation of new production and jobs based on high technologies, and ultimately the achievement of our lofty goals.

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First of all, it is necessary to ensure rapid development and well-directed support of industries and enterprises that can compete equally in the world market and become a locomotive of economic growth, further modernization and diversification of the economy at the next stage.

In particular, according to estimates, the annual consumption of natural gas is 3.1 trillion cubic meters worldwide. It is estimated that by 2020, the daily demand for oil products will reach 100.2 million barrels, and the annual demand for natural gas will reach 5.5 trillion m3. Some experts estimate that after 2020, this demand will reach 6 trillion cubic meters of natural gas and 103.2 million barrels of oil per day.

Based on the above, this master's thesis researches the issue of processing non-renewable satellite and flare gases into liquid hydrocarbons and using them on an industrial scale. As we know, there are several types of alternative energy sources, mainly solar, wind, and biogas sources from animal waste and plants. Currently, in our republic, in particular, in the oil and gas industries, work is being carried out on the application of several types of alternative energy to production. In particular, a number of works are being carried out in connection with the disposal of satellite gases, the effective use of the amount of heat coming out of compression compressor units, the introduction of the use of gases supplied to flares in solar energy and oil and gas enterprises.

In the master's thesis, the utilization of satellite gases coming out of the mines used at low pressure and the production of liquid hydrocarbons based on the reprocessing of the gases fed to the torch, the effective use of this product in industry and other sectors, and the impact of the prevention of environmental and atmospheric pollution are analyzed. made and based on.

The oil contains light hydrocarbons, and information on the study and analysis of the work carried out abroad and in our republic in the study of ways to eliminate the loss of these fractions in its effective use is provided. Acceleration of extraction and processing of associated gases contained in oil in the fields of "Shortanneftgaz" LLC and "Muborakneftgaz" LLC enterprises is extremely urgent today. In connection with the rapid development of the petrochemical industry, prevention and recovery of the loss of light hydrocarbons in oil and gas is one of the important issues in creating a solid and economical base of raw materials.

Gas processing and production of liquid hydrocarbons based on new technologies form the main scientific content of the dissertation.

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Research object. Processes of using new technologies in "Shortanneftgaz" and "Muborakneftgaz" LLCs for the extraction of accompanying gases from the composition of oil and their effective use are analyzed.

Research scientific news. Analysis of the process of accelerating the implementation of satellite gas extraction and utilization projects in the networks of "Shortanneftgaz" and "Muborakneftgaz" LLCs, as well as research on the issues of using satellite oil gases in low-pressure fields at the expense of increasing the pressure of flare gases. done

Theoretical and practical significance of research results. Based on the application of modern technologies, extracting the latest raw materials from the composition of satellite oil and gas products, the scientific basis of processing processes and the main promising direction for its use is disposal of satellite oil and gases using small-sized devices. the possibility of flaring and direct extraction of gaseous methane fuel, stable gas gasoline and liquid mixture of propane-butane fraction is studied.

Expected results. Methods of converting gases into liquids, technologies for extracting gases from oil, the procedure for using liquefied gases and the use of flare gases in low-pressure fields are based on suggestions.

Conclusion

Natural gas reserves and production indicators in Uzbekistan There are 45 power plants for the production of electricity in the republic, 12.4 thousand. It has the capacity to produce 55 billion megawatts of electricity per year. about kw of electricity is produced. 56% of natural gas and 85% of coal produced in the republic are used for electricity production.

At the level of Uzbekistan, it is felt that the demand for oil is increasing and there is a certain need to increase liquid hydrocarbons. On the initiative of the President of our country, I.A. Karimov, the establishment of large enterprises based on new technologies for extracting liquid hydrocarbons from natural gas is being promoted, and the issue of accelerating the establishment of gas chemical complexes and JTL technologies, as well as shale gas processing technologies, has been cross-referenced.

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