

*Materials of Conferences***BASIC PRINCIPLES OF ENVIRONMENTAL MONITORING OF OIL AND GAS FIELDS AT THE INITIAL STAGE OF DEVELOPMENT**

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The concept of environmental monitoring (for example, Yurubcheno-Tokhomskoye oil and gas field – the largest in Eastern Siberia) provides a special system of observation, monitoring, evaluation, prognosis, and determine trends in the state of the environment under the influence of technological processes related to exploration and development of oil and gas fields [1–5]. Conducting monitoring is based on the construction and equipment of a special regime network and the availability of long-term program of observations. The monitoring program is based on the following fundamental principles:

1) a systematic approach – the dual performance of work for solving the overview, regional, local and detailed level;

2) the complexity of monitoring – monitoring characterize all natural ingredients: air basin, groundwater and surface water, subsoil, soil, topography, landscapes, vegetation, wildlife, social sphere;

3) the objective of monitoring – resulting information must be accurate and adequately reflect the changes taking place, which is achieved at the organizational and practical level of the works;

4) continuous monitoring – is essential to the work. Depending on the object of monitoring, surveillance should be regular (daily, ten-day, monthly, quarterly, annually);

5) the adequacy of monitoring – provides the volume of the research (quantitative aspect), and the correct choice of points, routes or observation points (qualitative aspect);

6) performance monitoring – involves unification, systematization, processing data, creating information databases and data banks;

7) stage nature of monitoring – a gradual increase in the number of observation as the development of facilities in order to achieve its maximum coverage, both in plan and in section.

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