

Classical, English, French, Country, Ecodesign, Japanese style, Oriental, Fantasy, Mediterranean style, Exotic, Free style, Scandinavian, High tech, Modern, Baroque, Alpine, Forest, Architectural, Minimalism.

In conclusion I would like to say that it is extremely important for the students of landscape design to be aware of different styles and historical prerequisites of the formation of the sustainable urban environment and preserving natural beauty while creating landscape architecture.

FLUSHING GROUTING SOLUTIONS

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The oil well is the excavation of roundish section intended for receiving and transportation of a hydrocarbon semi-finished product from a subsoil. Grouting flushing solution is applied in drilling to achieve increase in terms of functional suitability of the well, along with technological process of dissociation of layers upsetting columns.

In process of increase in depth of the well it is required to carry out the cycle of works on strengthening of a stem way including descent of an upsetting column and cementing the annular sector. As in grouting flushing solution usually (but not always) the working liquids containing cement are applied, this processing method received the duplicating name *cementation of the well*. For further successful operation of the well process of strengthening of walls cementation and, in particular, the quality of the formed cement stone, plays a paramount role. The composition of grouting flushing solutions has to:

- be without any emptiness, provide continuous filling of a zone between an upsetting column and stem walls of a face;
- provide the rated size of adhesion both with walls of casing pipes, and with the stem surface of the well;
- provide isolation and dissociation of productive and permeable layers;
- provide protection of annular space against penetration of oil and (or) gas-oil mix under the influence of excessive reservoir pressure;
- provide strengthening of an upsetting column in the thickness of the developed breed;
- provide an anticorrosive patronage of metal parts of an upsetting column from oxidizing destruction by interreservoir waters;
- provide partial unloading of a boring column from external pressure.

In view of the fact that the cement stone is not subject to replacement and has to provide reliable functioning of the well in all the time of operation cementation of a column needs to be carried out in strict accordance with the developed technical regulations, providing existence and use of quality grouting reagents.

Cementation of a column includes a cycle of works on preparation of flushing grouting solution and its forcing to the well in an annular interval. During the work constant control behind parameters of flushing grouting solution and its compliance to technical characteristics are conducted. After carrying out a cementage of the well, through time which is required for solution hardening the research of quality of the performed works is conducted and, at compliance of a cement stone to calculated process parameters, process of cementation of an object is considered finished.

As the cementing component of flushing grouting solutions portlandtsement and domain slags are used.

The Portlandtsement is the bulk with the knitting properties received as a result of simultaneous grind of plaster, clinker and (or) the granulated domain slags. At the same time the amount of plaster in the received mix is regulated within 1.5-3.5%. Portlandtsement grouting mixes have ability of hardening and transforming into mineral compounding which is characterized by the increased mechanical durability after a while after cultivation of components in water. The cement stone is formed as a result of reactions of hydration and hydrolytic dissociation of brick elements. Thus mineral composition of clinker plays a major role at course of the chemical reactions determining the speed of hardening of flushing grouting solution and finishing functional properties of the received concrete.

In the fields with abnormally high pressure works on a cementage of wells are performed by a multistage method, at the same time increase density of drilling grouting mud up to the greatest possible size. Besides, these processing methods, in order to avoid behind-the-casing oil and gas water manifestations, use the sedimentologically resistant grouting components providing the accelerated *bonding* of cement mix. As a result of treatment, the walls of the well successfully resist the permeability of the layers.

References:

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