

GREENSTONE BELTS METALLOGENIA IN THE WESTERN PART OF THE ALDAN SHIELD

NIKITIN V.M. YAKUTSK STATE UNIVERSITY, YAKUTSK, RUSSIA

THE PROCESS OF STUDYING THE GEOLOGY, FORMATION CONTENTS AND ORE-COMPONENTS OF THE GREENSTONE BELTS OF THE WESTERN PART OF ALDAN SHIELD HAS ALLOWED TO ELABORATE THE FORMATIONAL, STRUCTURAL, METAMORPHIC AND GEOCHEMICAL CRITERIA OF SEARCH OF PRECIOUS AND FERROUS METALS DEPOSITS, ON THE BASIS OF WHICH THE METALLOGENIC ZONING OF THE TERRITORY AND EVALUATION OF THE FORECASTING RESOURCES OF DIFFERENT TYPES OF ORE-MINERALS HAVE BEEN CONDUCTED. GREENSTONE BELTS OF THE OLEKMINSK GRANITE- GREENBELT AREA WERE FORMED BY THE LATER- ARCHEIC CIVATINE MEGAFORMATION, THE LOWER PART OF WHICH IS REPRESENTED BY THE SUBGANIC AND THE UPPER ONE - BY THE TASMIELINE STRUCTURAL- FORMATIONAL ROWS HAVE BEEN ISOLATED. PETROGEOCHEMICAL STUDIES OF THE LATTER SHOW THAT THEIR FORMATION TAKES PLACE WITHIN VARIOUS GEODYNAMIC SURROUNDINGS. FROM METALLOGENIC POINT OF VIEW, AS WELL AS GEOLOGICAL RESPECT, GREENSTONE BELTS HAVE SPECIFIC FEATURES. THEY ARE GROUPED INTO STRUCTURAL-METALLOGENIC AREAS AND INDIVIDUAL ORE REGIONS, WHICH FORMATION OCCURS IN LATE ARCHEAN DURING TWO METALLOGENIC EPOCHS. FIRST EPOCH IS REPRESENTED BY FORMATION OF LARGE SEDIMENTARY-METAMORPHOGENETIC DEPOSITS OF FERRUGINOUS QUARTZITE, ORE MANIFESTATION AND DEPOSITS OF GOLD, TALC, ASBESTOS, NICKEL, COBALT, APATITE IN METAVOLCANIC ROCKS BASALTIC FORMATION AND IN PYROXENITES OF METAGABBRO-DIORITE-GRANODIORITE ONE, PLATYNOID IN ROCKS OF METADUNITE-PERIDOTITE FORMATION. SECOND MINERAGENETIC EPOCH, WHICH IS REPRESENTED BY GRANITOIDAL AND VOLCANIC-SEDIMENTARY FORMATIONS, IS ASSOCIATED WITH DEPOSITS AND SHOWS OF MUSCOVITE, RARE METALS AND APATITE.