

The invention relates to radioisotope methods for determining soil moisture. Additive method of accounting for soil density in determining its moisture with radioisotope methods involves measuring the natural soil density with gamma-gamma density meter directly in the test well, with finding interpretive parameter of downhole measurements, building calibration dependence for neutron moisture meter. According to the invention, a common for the whole range of possible values of the soil skeleton density calibration dependence of neutron moisture meter is compiled based on laboratory determinations of moisture and soil bulk density of the skeleton. Interpretation parameter of the neutron moisture meter is obtained by subtracting from the moisture meter readings the component caused by the skeleton of soil which is calculated from the measured with gamma-gamma density meter with account of visible soil density as determined by neutron moisture meter by calibration curve. The method simplifies the interpretation of radioisotope measurements, increasing their precision and efficiency, reduces the cost of soil moisture determination.