Development of a Measuring Method for Microbial Degradation of Environmental Pollutants Minoru SHIMURA Pollutions of soil and underground water, such as a leakage of gasoline from underground storage, pose significant risks to living organisms. An approach using microorganisms for remediation of polluted environment is applicable to locations where beneath of buildings and bridges. However, any monitoring method of biological remediation activity in soil is unavailable so far. It is essential to estimate a biological activity in soil to proceed remediation activity, therefore, we established a method, combined with a detection of bacteria in soil using a spectral analysis and genetically modified bacteria which release green fluorescence with remediation activity.