

## Distribution of stratigraphic units of Middle Pleistocene Izumiyatsu Formation and their arsenic concentrations

YOSHIDA, Takeshi<sup>1\*</sup> ; KUSUDA, Takashi<sup>2</sup> ; NIREI, Hisashi<sup>3</sup>

<sup>1</sup>Research Institute of Environmental Geology, Chiba, <sup>2</sup>Former Research Institute of Environmental Geology, Chiba, <sup>3</sup>Institute of medical geology

We identified the strata units of the Pleistocene Izumiyatsu Formation, which extends from the central part of Chiba Prefecture to the northeast, and the distribution of arsenic in these strata. In our summary of the geology, we refer to the Shimofusa Group.

It is possible to divide the facies of the Izumiyatsu Formation, a type locality, into five beds ? a muddy sand layer (facies 1: an estuarine sediment), an interbed of fine sand and mud (facies 2: a tidal flat sediment), a sand layer (facies 3: a tidal channel sediment), a silt layer (facies 4: a freshwater?seawater marsh sediment), and a medium sandy mud layer (facies 5: a inner bay marine sediment). The Izumiyatsu Formation, with changing facies, exhibits the following distribution pattern: facies 1, 2, 3, 4, and 5 in the southwest area, facies 5 only in the central area, and facies 4 and 5 in the northeast area. Only facies 5 is continuously distributed throughout the research areas.

Silt layer(Facies 4), the freshwater?seawater marsh sediment, has lower arsenic concentrations in sediment and in leachate than the other facies. Facies 5, the inner bay sediment, has higher arsenic concentrations in sediment and in than the other facies.

Keywords: Member unit, Groundwater flow, Arsenic