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Stratigraphy of fill deposit of the Tako channel in the northeast part of Chiba Prefecture, Central Japan

Hiroomi Nakazato[1]; Keisuke Inoue[2]; Hiroyuki Sato[3]

[1] NARO(NIRE); [2] NIRE; [3] Shizuoka Seikogakuin

http://nkk.naro.affrc.go.jp/

The distribution of channel-fill deposit including Tako Shell Bed is known from of old, in the region from New Tokyo International Airport to Sosa City via Tako Town (Suzuki and Takai,1935; Mitsuchi, 1935). There are various opinions of whether this channel-fill deposit is correlated with which formation of the Shimosa Group. Sato (1993) called this valley a Tako channel, and correlated this channel fill deposit with the Kioroshi Formation assuming that it was consecutive in unconformability of the Kioroshi Formation base in the west of this region. On the other hand, Shimousa Daichi Research Group (1996) showed the distribution of the valley similar to Sato (1993), but correlated the channel-fill deposit to the Kiyokawa Formation because this deposit was covered by the Kioroshi Formation unconformably, and the intercalated tephra was correlated with the tephra in the Kiyokawa Formation. In this report, we examine the stratigraphy of the Tako channel deposit based on the finding obtained afterwards.

1. Outcrop information in the Hironuma, Tako Town: In this outcrop (the top altitude is 40m), the Tako channel deposit and the strata which compose the geomorphic surface are comformably.

2. Borehole information in the Sano, Tako Town: The base of the Tako channel deposit is in above sea level -18.9m in this point (the surface altitude is 27m). The S wave velocity of this ground is about 200m/s up to 30m in depth. It is thought that the solidity of the Tako channel deposit is low.

3. Tephra characteristic: Refractive index and the chemical composition of the volcanic glass of the tephra from the Tako channel deposit are different from those of the tephra from the Kiyokawa Formation.

These information suggests that the Tako channel deposit is correlated with the Kioroshi Formation.

References

Mitsuchi (1935): Geology of the Chiba district, 1:75000, GSJ, 25p. Sato (1993):Nat. Hist. Mus. Inst., Chiba, 2, 99-113. Shimousa Daichi Research Group (1996):Monograph, 45, 1-22. Suzuki and Takai (1935): Jour. Geol. Soc. Japan, 42, 1-35