Three-dimensional seismic velocity structure in and around the Onikobe region

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Onikobe region has been recognized as an area that has inhomogeneous crustal structure because of the existence of several Quaternary volcanoes and calderas in it. We estimated a detailed three-dimensional seismic velocity structure beneath this area and revealed that a low-velocity conduit is located to the west of Naruko volcano from the lower crust to the surface. Perhaps it is caused by hydrothermal activity, because it has low Vp/Vs rather than high Vp/Vs. This interpretation is supported by the fact that the geothermal activity is very high in this area. Moreover, we found velocity anomalies corresponding to the calderas located in this area.