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A contribution to the Quarternary geology of the Enns valley by reflection seismics between Liezen and Weng (Austria)

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In 1993 three reflection seismic profiles were acquired situated in the Enns valley (Styria) between Liezen and Weng, where considerable glacial overdeeping could be proven clearly. The overdeeping was determined in the area east of Liezen as about 480 m, near Admont about 490 m, and east of Weng 350 m. The form of overdeepening could be a through and in the central part dominates a flat relief. A medium steep rise in the direction of the outcropping prequarternary underground could be recognized at the flanks of the buried valley. The base of the Quarternary is characterized by a marker horizon with good continuity and amplitude. The velocity analysis gives a certain contribution for the identification of this horizon. The Quarternary shows reflections of different quality, extension, and configuration, which can not be correlated between the profiles with confidence. East of Liezen the most part of Quarternary is reflection free at the profile 9303. Continuous Quarternary reflections could be produced by intercalations of gravels. Base of Quarternary shows vertical displacements up to 140 m; it is not certain if this is caused by tectonics (faults) or steepening of the underground. In the case of fault tectonics is a relation with the great Salzach-Enns fault probable and also a late Quarternary activity.