1025-46-14 G. Androulakis (giorgis@math.sc.edu), Department of Mathematics - LeConte College, 1523 Greene Street, University of South Carolina, Columbia, SC 29208, and F. Sanacory* (sanacory@math.sc.edu), Department of Mathematics - LeConte College, 1523 Greene Street, University of South Carolina, Columbia, SC 29208. On the "Multiple of the Inclusion plus Compact" Problem. Preliminary report.

The "multiple of the inclusion plus compact problem" which was posed by T.W. Gowers in 1996 and Th. Schlumprecht in 2003, asks whether for every infinite dimensional Banach space X there exists a closed subspace Y of X and a bounded linear operator from Y to X which is not a compact perturbation of a multiple of the inclusion map from Y to X. We give sufficient conditions on the spreading models of weakly null normalized basic sequences of a Banach space X which guarantee that the "multiple of the inclusion plus compact" problem has an affirmative answer for X. Our results strengthen a previous result of the first named author, E. Odell, Th. Schlumprecht and N. Tomczak-Jaegermann as well as a result of Th. Schlumprecht. We give an example of a Hereditarily Indecomposable Banach space where our results apply. For the proof of our main result we use an extension of E. Odell's Schreier unconditionality result for arrays. (Received November 22, 2006)