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Supplement of

Resolution capacity of geophysical monitoring regarding permafrost degradation induced by hydrological processes

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Supplementary material

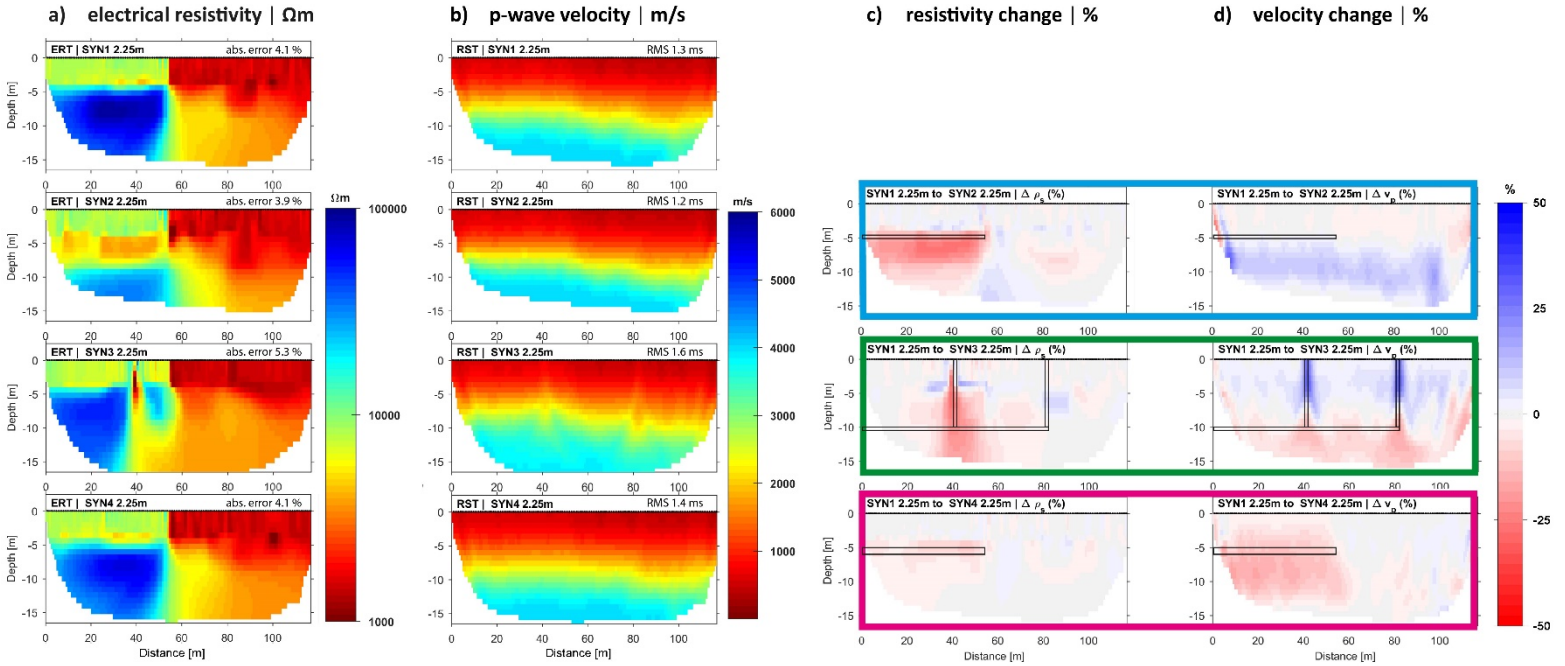

Fig. S1: As Fig. 5, but with reduced sensor spacing of 2.25 m: Inverted synthetic model sections of the synthetic model scenarios for (a) ERT and (b) RST, and percentage changes between (c) ρ_s and (d) v_p of the three scenarios with respect to the baseline model. The positions of the introduced changes between the different scenarios are indicated by black lines.

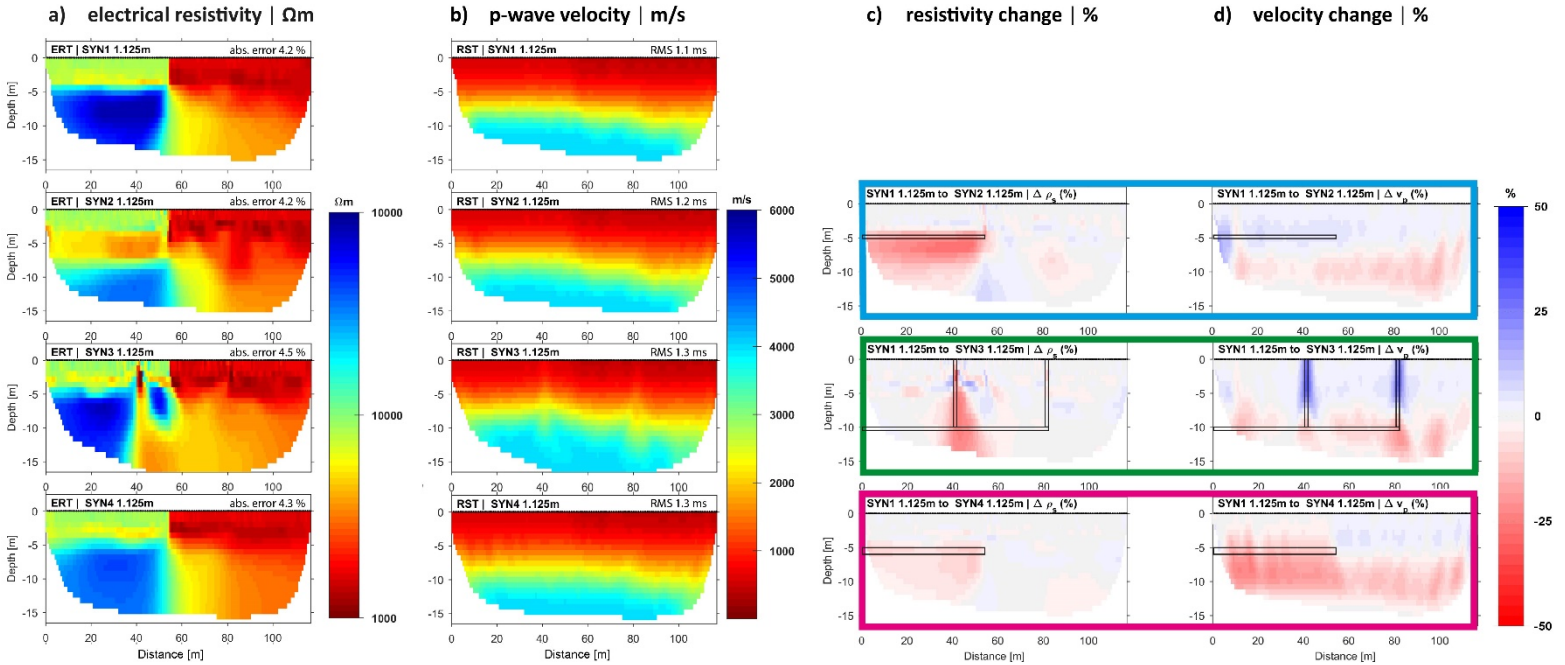

Fig. S2: As Fig. 5, but with reduced sensor spacing of 1.125 m: Inverted synthetic model sections of the synthetic model scenarios for (a) ERT and (b) RST, and percentage changes between (c) ρ_s and (d) v_p of the three scenarios with respect to the baseline model. The positions of the introduced changes between the different scenarios are indicated by black lines.

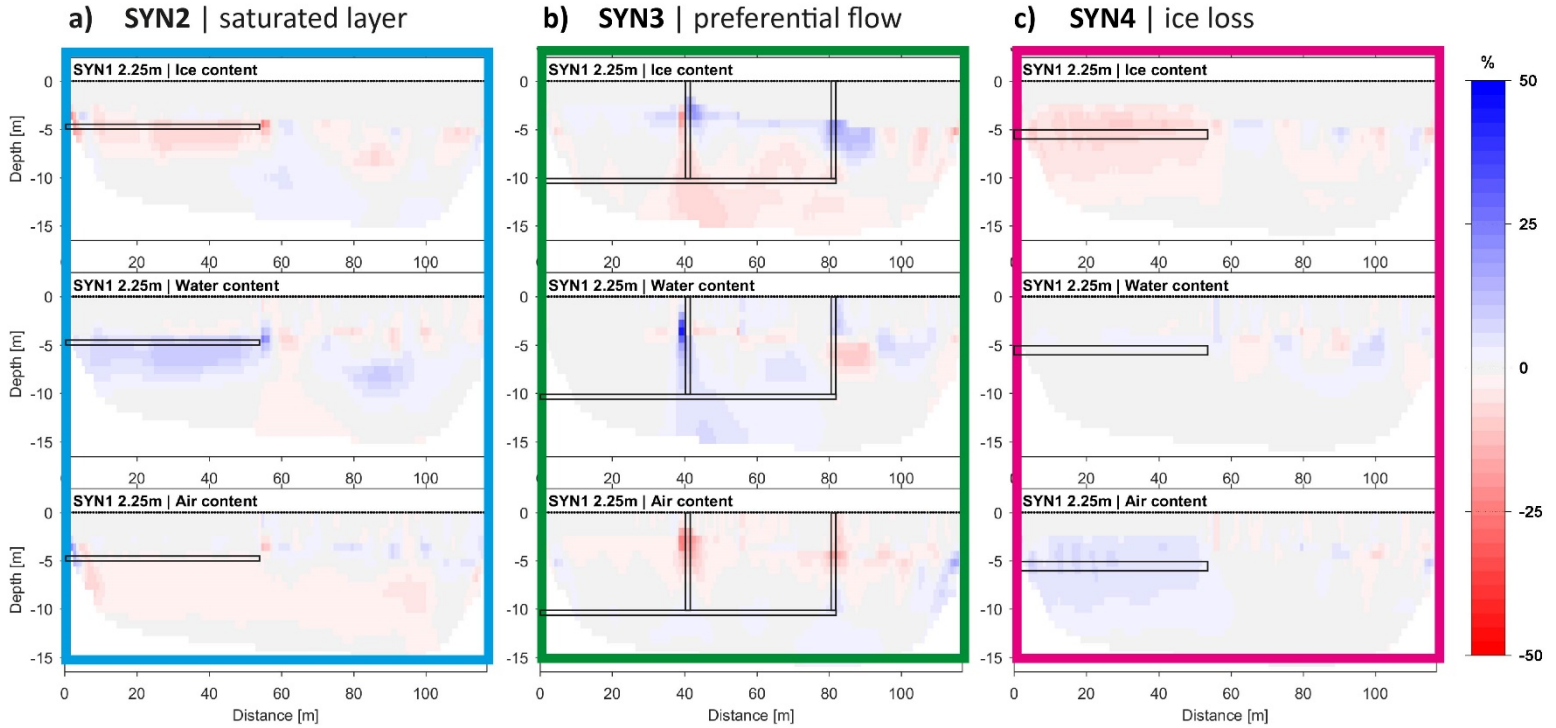

Fig. S3: As Fig. 7, but with reduced sensor spacing of 2.25 m: Changes in volumetric fractions for the three scenarios for the inverted synthetic data. The positions of the introduced changes between the different scenarios are indicated by black lines.

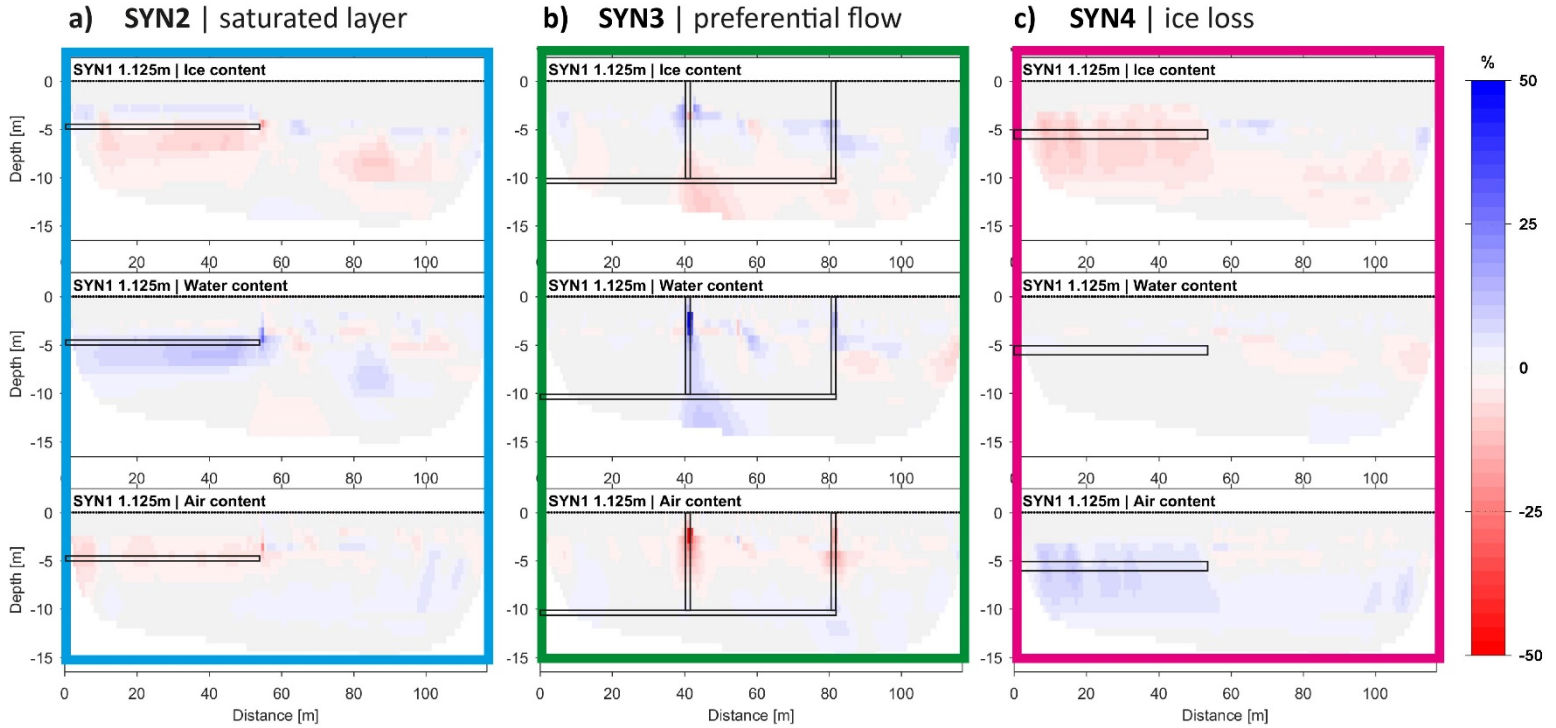

Fig. S4: As Fig. 7 but with reduced sensor spacing of 1.125 m: Changes in volumetric fractions for the three scenarios for the inverted synthetic data. The positions of the introduced changes between the different scenarios are indicated by black lines.

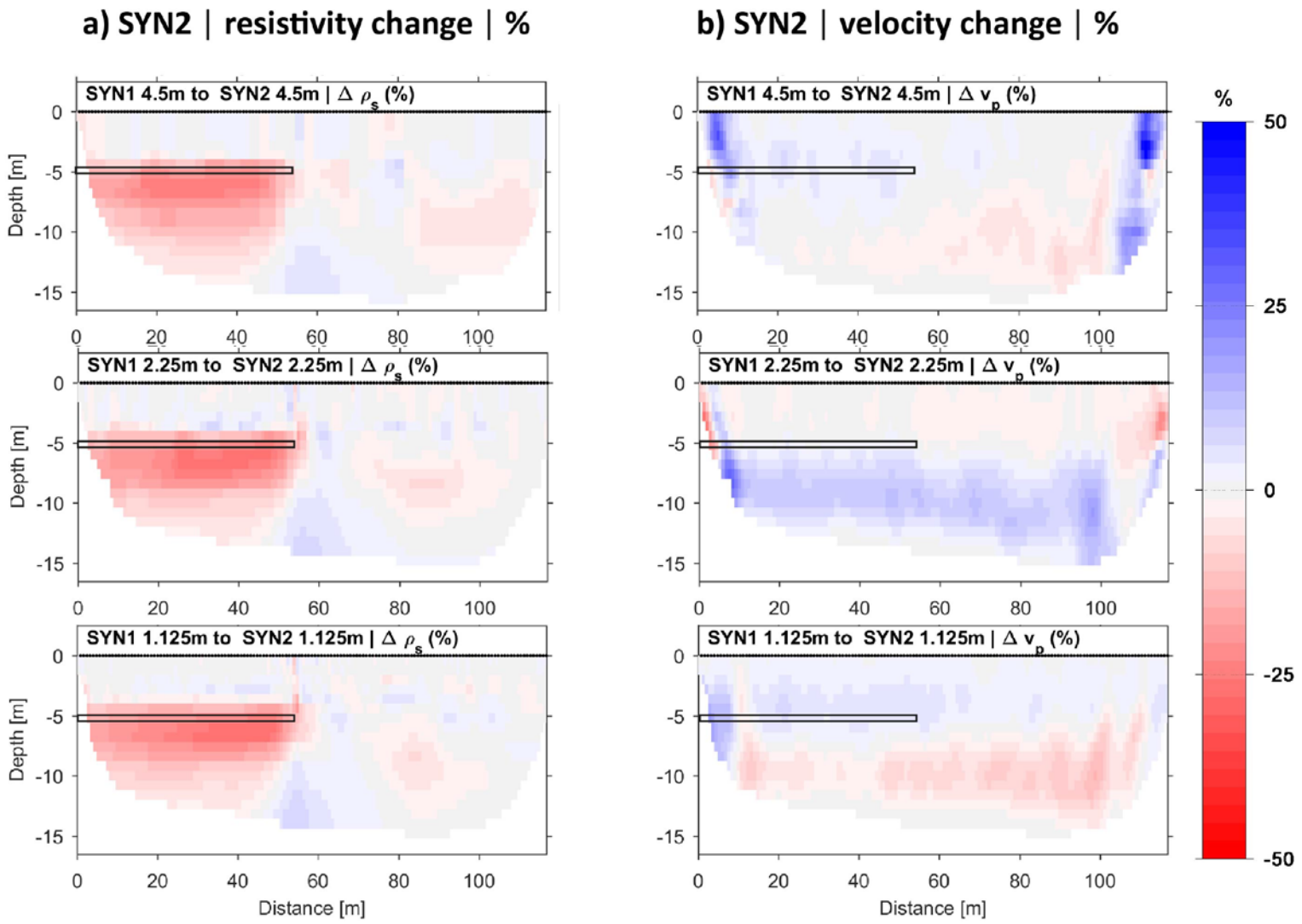

Fig. S5: Comparison of a) resistivity and b) velocity changes of inverted tomograms for scenario SYN2 for all three spacings. Top: 4.5 m, middle: 2.25 m, bottom: 1.125 m. The position of the introduced change is indicated by black lines.

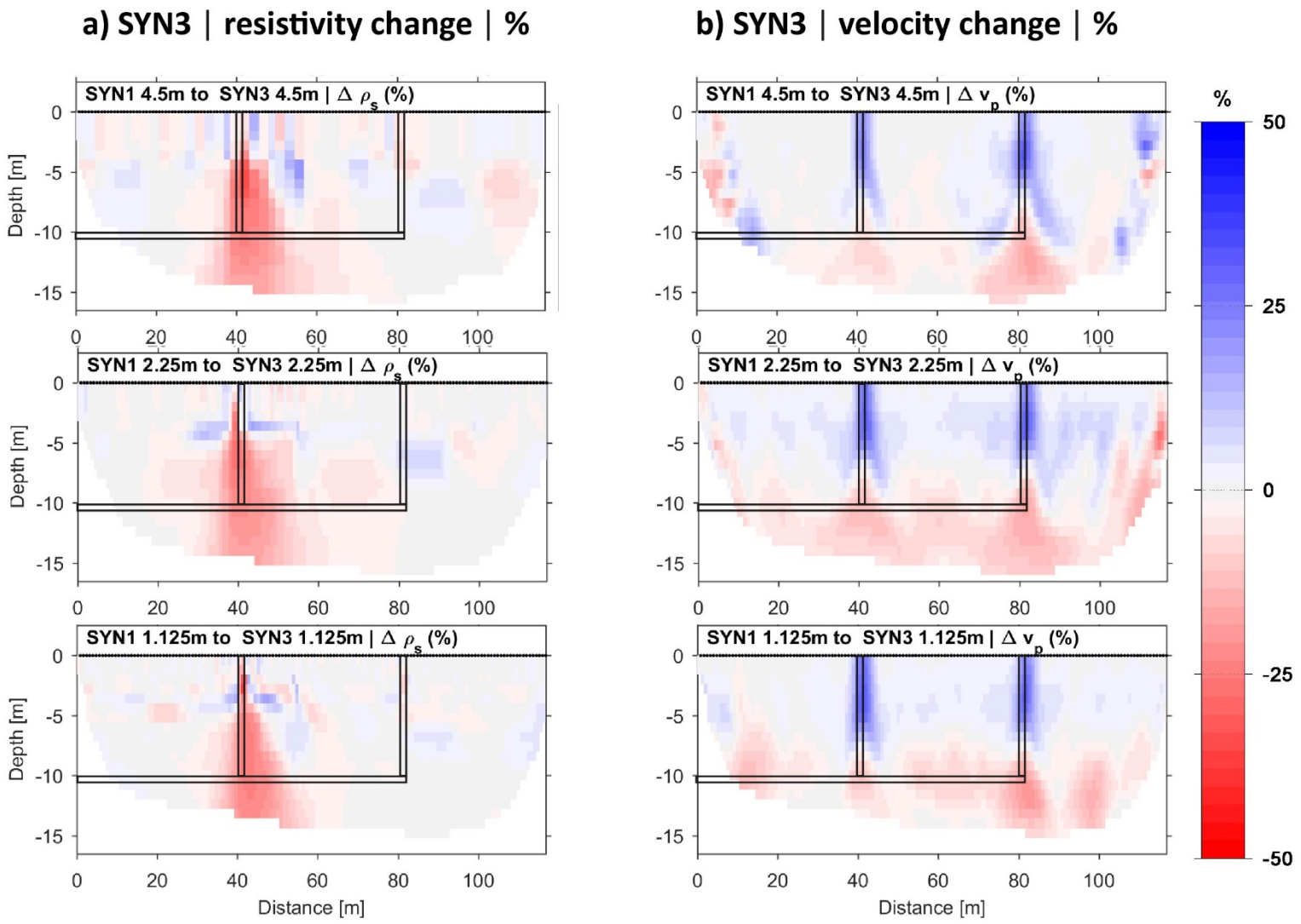

Fig. S6: Comparison of a) resistivity and b) velocity changes of inverted tomograms for scenario SYN3 for all three spacings. Top: 4.5 m, middle: 2.25 m, bottom: 1.125 m. The position of the introduced change is indicated by black lines.

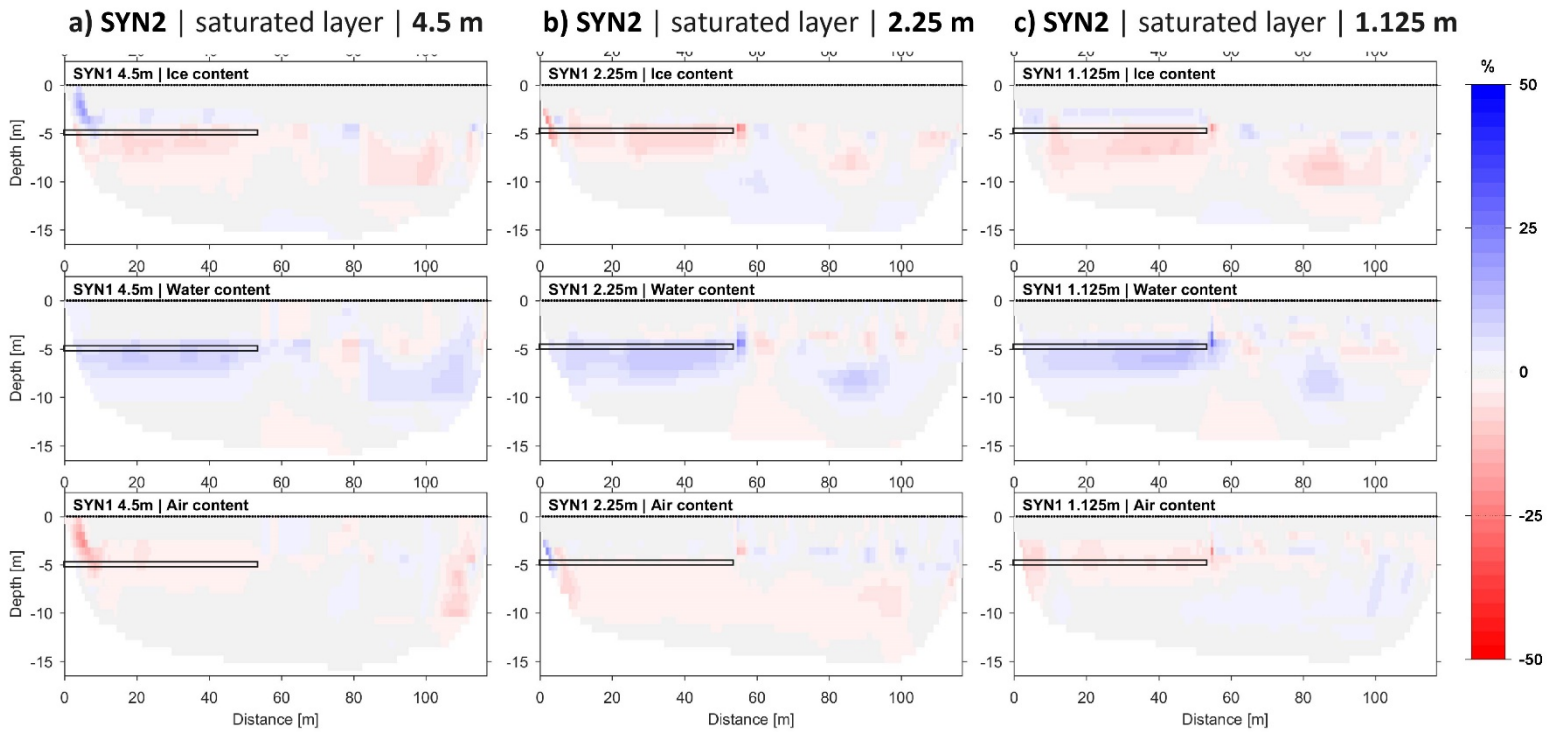

Fig. S7: Comparison of changes in volumetric fractions for the inverted synthetic data of scenario SYN2 for all three spacings: a) 4.5 m, b) 2.25 m, and c) 1.125 m. The position of the introduced change is indicated by black lines.

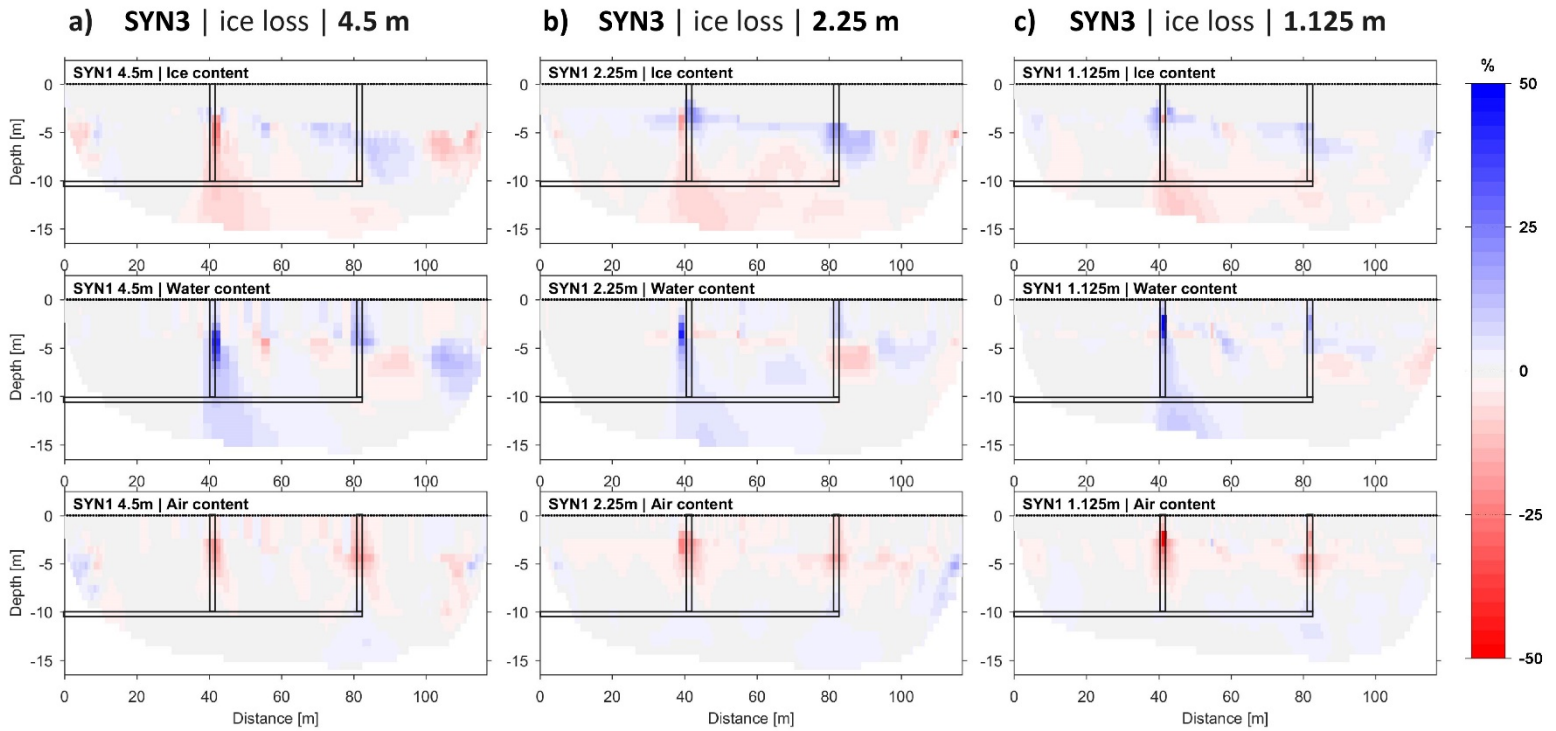

Fig. S8: Comparison of changes in volumetric fractions for the inverted synthetic data of scenario SYN3 for all three spacings: a) 4.5 m, b) 2.25 m, and c) 1.125 m. The position of the introduced change is indicated by black lines.