

Abstract Submitted
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Update on External Background Characterization of Homestake Mine for Sanford Lab and DUSEL¹ CHAO ZHANG, DONGMING MEI, KEENAN THOMAS, University of South Dakota, FRED GRAY, Regis University, JARET HEISE, Sanford Laboratory, DAN DURBEN, Black Hills State University — Measuring and monitoring external sources of background at Sanford Lab/DUSEL are important to the planned low background experiments. The fluxes of cosmic-ray muon, gamma-ray, neutron, and radon at several levels of depth are being measured for more than one year at the Homestake Mine. We report the updated results on: (1) cosmic-ray muon flux; (2) the measurement of long-term high energy gamma ray induced by muon bremsstrahlung process; (3) neutron flux; and radon survey.

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Chao Zhang
University of South Dakota

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