1. Record Nr. UNINA9910380732103321 Autore Benndorf Jörg Titolo Closed Loop Management in Mineral Resource Extraction: Turning Online Geo-Data into Mining Intelligence / / by Jörg Benndorf Pubbl/distr/stampa Cham: .: Springer International Publishing: .: Imprint: Springer, . 2020 **ISBN** 3-030-40900-7 Edizione [1st ed. 2020.] 1 online resource (VIII, 104 p. 62 illus., 54 illus. in color.) Descrizione fisica Collana SpringerBriefs in Applied Sciences and Technology, , 2191-530X Disciplina 622.068 622.0285 Soggetti Fossil fuels Geotechnical engineering Fossil Fuels (incl. Carbon Capture) Geotechnical Engineering & Applied Earth Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia A Closed-Loop System for Mineral Resource Extraction -- Real-Time Nota di contenuto Updating of Resource and Grade Control Models -- Optimization of Short-term Mine Planning and Production Control -- The Value of Additional Information -- Final Remarks. Sommario/riassunto This book describes an innovative closed-loop concept that allows the feedback of online data from operational monitoring to create mining intelligence. The application of this concept promises significant improvements in economic and environmental key performance indicators for any mining operation. Combining theory with industrial case studies, the book guides readers through this process by providing theoretical background, addressing practical issues related to operational implementation, and illustrating the impact on selected examples. This new concept is presented using the example of a bulk and gold mining application, but is applicable at any mine where grade control is important. The book is of interest to industrial professionals involved in operational monitoring, mining intelligence, and mine planning optimization, as well as to researchers and academics in the field of applied geostatistics.