

## SEISMIC REFLECTION INTERPRETATION TECHNOLOGY OF URBAN GROUND FISSURES WITH HIGH DENSITY REFLECTION

*Yujia Ma; Rongyi Qian, China University of Geosciences*

Ground fissures generation is various and have serious impact on urban planning and urban construction, while it is a hidden disaster, hence high-resolution detection method is needed. High density seismic reflection technique can be used to detect the fine characteristics of ground fissures. However, diastrophism distance of ground fissure in shallow strata is tiny, and it is difficult to identify in the seismic section. Moreover, Human activities have a great effect on shallow surface, which brings many reflection seismic interpretation traps. This paper discussed fine interpretation technique of seismic reflection profile in small group interval, small shot interval and small line spacing, by analyzing the reflection superimposed seismic profile of 20 lines of 20 meter-line spacing 1 m group interval, combining the attribute extraction technology, the spatial distribution features of ground fissures can be determined. This research showed the reflection characteristics of ground fissure breakpoint in the seismic profile which is different from fault. We presented an identification and interpretation method of ground fissures in the shallow 30m depth range, reduced the explanation trap, and improved the accuracy and reliability of interpretation.