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方法技术

高密度电法测量中接地电阻试验研究

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摘要

首先在同一实验场地进行接地电阻均匀与非均匀情况下的电法勘探对比试验,讨论在地下各层视电阻率变化率及接地电阻对视电阻率的影响灵敏度；通过逐个舍弃电极实验,比较舍弃不均匀电极的反演剖面图,确定出合理摈弃非均匀接地电阻数量的范围；最后在实例电法测量中运用舍弃非均匀电阻方法有效阻止了异常接地电阻的反演畸变,提出了合理舍弃高阻电极测量数据的实测视电阻率资料处理方法。

关键词 高密度电法；接地电阻；视电阻率

Experiment on ground resistance in high density electrical measurement

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An experimental study of electrical prospecting with uniform and non uniform ground resistance on the same testing field was introduced.The variability of apparent resistance and the effect of ground resistance on sensitivity in different layers were investigated.Reasonable number of abandoning ground resistance was determined by comparing the inversion profiles resulted from deleting electrode one by one.Inversion artifacts are prevented from deleting non uniform resistance in real data processing.

Abstract An experimental study of electrical prospecting with uniform and non uniform ground resistance on the same testing field was introduced.The variability of apparent resistance and the effect of ground resistance on sensitivity in different layers were investigated.Reasonable number of abandoning ground resistance was determined by comparing the inversion profiles resulted from deleting electrode one by one.Inversion artifacts are prevented from deleting non uniform resistance in real data processing.

Key words high density resistivity method;ground resistance;apparent resistivity

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