

## 方法技术

### 影响地质雷达探测效果的不利因素分析

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**摘要** 理论结合工程实例分析了影响地质雷达探测效果的几种常见不利因素: 探测目标体有多层钢构且表层钢构分布密集、探测目标体富水、以及目标体尺寸与埋深比过小, 并举了遇到这三种不利因素时工程中的处理方案。当探测目标体有多层钢构且表层钢构分布密集时, 需根据实际情况结合其他探测手段, 如钻孔取心法等; 当探测目标体富水时, 应结合具体情况进行探测判定。当目标尺寸与埋深比过小时, 要做设计优化和技术调整。

**关键词** [地质雷达](#); [电磁波](#); [钢构](#); [介电常数](#)

## Analysis of the adverse factors affecting ground penetration radar survey

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**Abstract** This paper investigated the adverse factors that affect ground penetrating radar survey from theory and real engineering examples. Unfavorable situations include target with layers of steel members that are unevenly distributed at the top, water enriched target, and target whose dimension is much smaller than its buried depth. Different measures could be adopted in case of unfavorable situations. For target with layers of steel members that are unevenly distributed at the top, extra method should be used such as coring. For water enriched target, proper measures should be determined according to individual targets. For target whose dimension is much smaller than its buried depth, observation geometry should be optimized.

**Key words** [ground penetration radar \(GPR\)](#); [electromagnetic wave](#); [steel member](#); [dielectric constant](#)

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