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Chapter 3. Summary of Parameters Affecting Work at the Site; 3.1. Summary of parameters affecting the microtunneling; 3.1.1. Rate of penetration; 3.1.1.1. Duration for pipe jacking only
3.1.1.2. Total duration for the installation of a pipe in the ground
3.1.2. Alignment deviations; 3.1.2.1. Human factors; 3.1.2.2. Technological factors; 3.1.2.3. Factors linked to the soil; 3.1.3. Frictional forces; 3.1.3.1. Principle of analysis for experimental data; 3.1.3.2. Effect of the overcut; 3.1.3.3. Impact of the downtimes; 3.1.3.4. Impact of lubrication; 3.1.3.5. Impact of misalignment; 3.1.3.6. Impact of granulometry; 3.1.4. Stresses at the head; 3.1.4.1. Presentation of general results; 3.1.4.2. Influence of blasting and mucking; 3.1.4.3. Influence of trajectory deviations
3.2. Description of the main hitches that can occur when constructing a microtunneling site
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4.1.3. Cost of investigations; 4.2. Data to be acquired; 4.2.1. Geological configuration of the site; 4.2.2. Hydrogeological conditions; 4.2.3. Geotechnical characteristics of the ground; 4.2.4. Cavities and artificial obstacles; 4.2.5. Environmental conditions; 4.3. Methodology and means of investigation; 4.3.1. Documentary survey; 4.3.2. Geophysical investigations; 4.3.2.1. Objectives; 4.3.2.2. Usefulness of different methods; 4.3.2.3. General guidelines; 4.3.3. In situ boreholes and geotechnical tests; 4.3.3.1. Objectives of boreholes
4.3.3.2. Layout of boreholes

Sommario/riassunto

This book includes recommendations prepared by members of the French Society for Trenchless Technology (FSTT), based on their recent national multi-year project. Comprehensive guidelines, techniques and theories in the areas of both microtunneling and horizontal drilling are given, encompassing the fields of application for each method, what investigations should be undertaken, which machines and equipment should be used, how the work should be managed and potential problems that may arise. The recommendations, the analytical methods used and their verification with laboratory and field data
