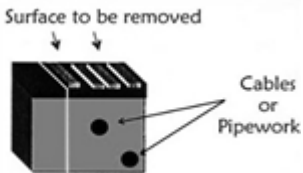
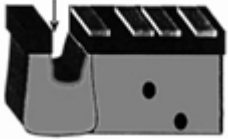

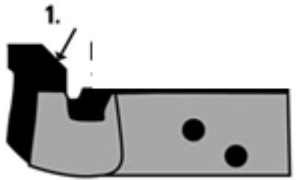
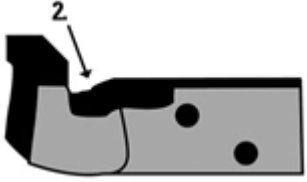


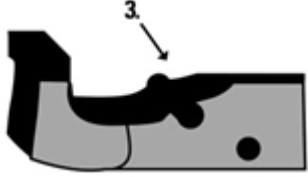
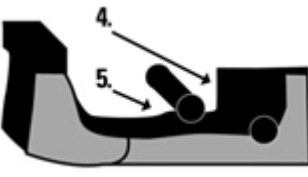
### 1. INTRODUCTION

- 1.1 Anyone working near underground utilities must be properly trained in the use of safe digging techniques. They will be trained and instructed in the specific safe working procedure and emergency arrangements applicable to the work. In all cases non-mechanical excavation techniques (vacuum excavation etc.) are preferable to digging.
- 1.2 This reference material is in addition to the Working Near to Utilities procedure. It is of a general nature and is used to provide information to assist in working safely when near underground services.

### 2. REFERENCE MATERIAL

- 2.1 To assist with the identification of existing utilities [LinesearchbeforeUdig](#) is a free to search on-line service providing immediate answers regarding those affected by planned works. The Utility Members (asset owners) of [LinesearchbeforeUdig](#) provide rapid responses to searches, and enquirers are also provided with contact details for Non-Utility Members. The service also covers strategic gas/oil pipeline information e.g. Shell, BP, Total UK, ESSO, ConocoPhillips etc. and was formerly provided by Linewatch.

<ul style="list-style-type: none"> <li>• Ensure the utilities and corresponding exclusion zones (minimum 1000mm) are clearly marked out.</li> </ul>	 <p>Surface to be removed</p> <p>Cables or Pipework</p>
<ul style="list-style-type: none"> <li>• Use hand held power tools to cut the surface outside of the exclusion zone.</li> <li>• Break out the surface outside the exclusion zone and dig down sufficiently to break out the surface within the exclusion zone.</li> <li>• Once it has been established that the utility isn't within the cutting depth of a rotary disc cutter blade, the remaining surface can be removed with a hand held power tool.</li> </ul>	 
<ul style="list-style-type: none"> <li>• Once the surface has been removed, only use power tools outside the Exclusion zone.</li> <li>• Re-use the Cat and Genny and re-mark the area now that the surface has been removed.</li> <li>• Start excavation.</li> </ul>	 <p>1.</p>
<ul style="list-style-type: none"> <li>• Dig the excavation down the side of the first identified utility. Re-use the Cat and Genny continuously to check the position of utilities.</li> </ul>	 <p>2.</p>

<ul style="list-style-type: none"><li>• Continue to dig to the side of the first utility until it is exposed.</li></ul>	
<ul style="list-style-type: none"><li>• Carefully dig and clear around the exposed utility. Re-use the Cat as required to check for further utilities.</li><li>• Support and protect the exposed utility as necessary and continue to hand dig to locate the second utility.</li></ul>	
<ul style="list-style-type: none"><li>• Continue to dig and carefully expose the second utility, and support as necessary.</li></ul>	