

Safety Alert 24-54 Latent Damage to LV Cable

What Happened?

An excavation was being dug at a depth of 1.2m to lay a sludge main pipe. The area had been surveyed for services and available drawings were correct. The drawing identified LV cables at a depth of 1.6m and following trial holes were not considered to be an issue for the dig. The dig commenced with Vac-EX, but the whole run could not be completed by this means due to space constraints. The rest was completed by a mix of machine and hand dig. The dig was carried out successfully.



Photo 1: Exposed Cable and stone underneath

After the dig had been conducted, the client raised concerns that they had lost some services, but it was intermittent. Checks were carried out and a potential fault was found in the vicinity of the excavation. The circuit was isolated and under supervision of both the STW and MWH SAPs the cable was exposed to check for damage. The cable was located at the depth identified, but there was no warning tape on top of the cable and the cable had not been protected with sand and fine material. Instead, the cable was laid in a layer of sharp rocky ground. It was confirmed by the SAP that the damaged was caused by a stone under the cable penetrating into the earth cable and causing intermittent service loss.

The cable was repaired, and service was resumed. On inspection of the removed piece of cable it was apparent that the cable had been compressed over some time and this had caused the stone of bite into the cable from below.

Additional Information

- HSG 47 was followed correctly
- The team were trained and competent in cable avoidance
- Vac-ex was used for the majority of the dig
- Poor install of the cable was the main factor in the damage being caused



Photo 2: View of removed damaged cable showing compression

Safety Alerts should not be thought of as an incident investigation report. They are issued to raise awareness of incidents that occur and to highlight the safe work practices required to avoid them being repeated.

