SAFETY ALERT

WEL Networks

Subject: Worker cut in to live HV underground cable

Date: 14 June 2018

Description:
During the early hours of Tuesday 12th June, a high voltage cable fault occurred. During the fault repair, a worker cut through a live 11kV cable with a reciprocating saw. The resulting electrical arc flash led to the worker receiving a superficial burn to his left hand.

Locational errors within the GIS led the field crew to assume the cable that faulted on Tuesday morning was the same cable repaired three years prior. This was because the location on GIS indicated the faulted cable entered a building main entrance where the previous repair occurred.
The GIS data also contained inaccurate information relating to cable joints associated with the repair three years prior. This supported the locational error mentioned above as the joints were indicated on the section of cable that faulted on Tuesday morning but were in fact within second cable which was still live.

The worker had cut and capped the faulted cable the previous day and was continuing works. Although the cable was visible for the majority of the trench, there was a small section where the original trench was extended to expose additional joints and the cable was not visible. Failure to remove all the soil from the cable prior to undertaking the second cut, meant that the cable could not be physically identified from the original cut location to the second cut location. If physical identification had occurred along the entire length of the cable it would have identified that the cables entered the building closer to the faulted joint than indicated by the GIS.

Recommendations:

- GIS should not be the only source used to identify cables.
- A cable spike gun must be used to confirm a cable is de-energised prior to cutting.
- Expose the entire physical length of the cable repair during excavation.
- Where this is not practical and the cable is not visible for the entire length of the repair a cable spike gun must be used to confirm the cable is de-energised, prior to undertaking the second cut.

For further information contact: The WEL Networks Health & Safety Team.