

Incident Summary #II-762488-2018 (#9225) (FINAL)

SUPPORTING INFORMATION	Incident Date	October 19, 2018	
	Location	Vancouver	
	Regulated industry sector	Electrical - High voltage electrical system (greater than 750V)	
	Impact	Qty injuries	0
		Injury description	n/a
		Injury rating	None
	Damage	Damage description	2 underground high voltage lines were damaged during drilling of monitoring wells in preparation for new construction.
		Damage rating	Moderate
	Incident rating	Moderate	
Incident overview	Test monitoring holes were being drilled prior to building construction. During drilling, 2 high voltage lines were hit causing the breakers ahead of them to trip and power to the building to be lost.		
INVESTIGATION CONCLUSIONS	Site, system and components	Underground power lines distribute electrical power throughout the grid. As-built drawings keep a record of where these lines are located. There are also electronic and radar methods of locating these lines.	
	Failure scenario(s)	The 12.5 kv underground line was not located by the company marking the drill locations.	
	Facts and evidence	<p>Statements from building and other investigating personnel.</p> <p>A subcontractor who was hired to drill monitoring holes contacted the underground 12.5 KV conductor.</p> <p>The employer's representative (Project Manager) who was coordinating the project on behalf of the building owner produced drawings which identified approximate locations of the electrical service, however, the depths and the exact location were not known.</p> <p>It was also reported that this employer hired an outside contractor to conduct a survey on the locations but could not detect the locations with their equipment.</p> <p>It was also determined that the monitoring well bore holes did not have to be drilled where contact with the underground electrical utility occurred but could have been drilled in other locations well away from the service.</p>	
	Causes and contributing factors	It is highly likely that lack of communication between identifying the location of the conductors and the actual drilling of the holes was the contributing factor.	

Photos or diagrams (if necessary)