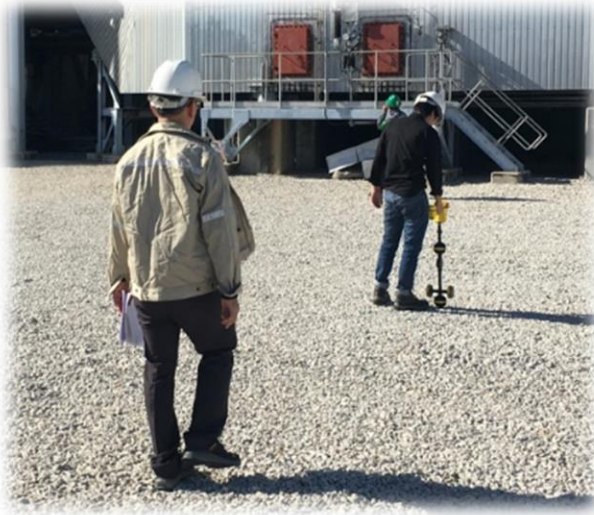


Buried Pipes Detecting Equipment



Cable and pipe locator technology uses electromagnetic signals to determine the depth, direction and orientation of conductive underground cables and pipes. It consists of signal generator to apply signal to buried line then a handheld receiver locates the signals from the transmitters or naturally occurring passive signals from buried lines.

Cable and pipe locator detects the magnetic field around the line created by flow of alternating current called 'signal'. It uses electromagnetic induction principles in two ways, either locating AC signal on line with receiver or the application of detectable AC signal by transmitter. The signal detection is affected by capacitance of conductor and strength of signal applied. A signal source should be such that, the detectability of current flow in a properly insulated buried conductor shall be capable of punching through the insulation. A high frequency signal induces high AC voltage with greater capacitance of flow thus easier to detect the buried pipes but high frequency signals flows easily to ground and furthermore causes mutual induction to other lines in vicinity causing difficulty to trace target line. The ground conductivity also effects the induction of signal on line so, proper tuning of frequency need to be conducted beforehand.

Field Testing



The non-metallic lines can also be detected by using tracer wire or inserting the transmitter in the line. Compared to other underground cable detectors, it is cheap, portable, easily handled by workers and can be use in all soil conditions