

Non-Locatable PG&E Underground Facilities

There are circumstances when a gas main and/or gas service cannot be located using ordinary conductive techniques. The following are some possible reasons for this problem:

1. **No locating wire:** The service to be located may not have a locating wire. This may even be the case if there is no evidence of a riser kit that is normally visible to indicate that the service pipe is made of plastic.
2. **Broken locating wire:** If a wire is present but locating is not possible or stops at a certain point, the wire is likely broken and the signal stops at the point of the break.
3. **Temporary repair:** In some temporary repairs, plastic replaces a section of steel main or service. The plastic section stops the transmitted signal if the steel pipe is not bonded together.
4. **Copper insert:** If the material inserted into the old casing is copper, the service is not locatable because it is isolated from the system. Isolating the service is the only way to keep the copper from causing damage (corrosion) to the steel main and steel riser. The material used to isolate the service acts as an insulator so that it no longer conducts a locating signal.
5. **Distance from transmitter:** Distance is key to locating an underground facility. The farther the distance between the transmitter and the facility to be located, the weaker the signal becomes. At some point, there is no signal at all.
6. **No ETS:** A lack of electrolysis test station (ETS) locations can add to the problem of distance, because there is no place to hook up a transmitter.
7. **Current from third-party cathodic protection:** If another utility, like a water company, has more current protection applied to their pipe than Pacific Gas and Electric Company (the Company), the stronger current can override a locator's output signal and prevent the Company facility from being located.
8. **EMF:** Certain electrical transportation systems (e.g., Bay Area Rapid Transit [BART]) can put out an electromagnetic field (EMF) that can override the signal the locator applies to a gas main or service.
9. **Signal from high-voltage cable:** The Company's high-voltage cable may produce an EMF that cancels the locator's transmitter signal, thus preventing the high-voltage cable from being located.
10. **Contact with third-party substructure:** An electrical contact can occur when another utility's underground structure comes into contact with a Company steel main, steel service, or locating wire. This contact causes the transmitter's signal to transfer onto another underground structure so that the pipe that should be located does not produce a signal (or produces a very weak one). If this signal is followed, the Company's gas main or service is not located.
11. **Water main break:** Water main breaks can cause a bad locate or no locate at all. At a certain point of ground saturation, the water disperses the output signal of the transmitter until the signal has faded or is too weak for the locator to receive it.