Learning Event

Safer Together

Excavation - Potential Contact with a Buried Asset

Hazard Excavation	led to	**Unwanted Event** Contact with a Buried Asset

Description

The industry has experienced multiple events during excavation activities where unidentified buried assets have been discovered.

These events have occurred in both Brownfield and Greenfield environments with third party assets and assets owned by the operating company. These assets may include, gas, water, high voltage cable, optic fibre, and communication cable.

Risk Event Statement

Due to the presence of unidentified live assets, contact with these assets may occur during excavation which could lead to personnel being exposed to live electricity or uncontrolled release of pressure, loss of containment and ignition of hydrocarbons potentially causing serious injuries, fatalities, asset damage and/or community/reputation impact.
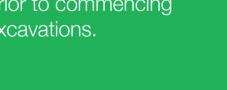
Habits

✔ Excavation area demarcated as per procedure.
✔ Available surveys checked for existing infrastructure prior to excavation.

✗ Signage removed, or not in place, to identify lines.
✗ GIS data of existing. infrastructure inaccurate
✗ Site based assessment prior to works did not pick up the visible indicators of buried assets.

Learnings

A heavy reliance on electronic data systems has reduced emphasis on ground truthing known and unknown services. Ground truthing methods can include:

> Non-destructive excavation
> Underground cable locator
> Service location signage
> Visual evidence of subsidence

Civil construction sequencing should always positively identify existing infrastructure prior to commencing excavations.

Considerations

> Develop and implement a plan to verify survey data by positive identification.
> Prior to any excavation the work team should in use all information / equipment available to them to effectively validate buried services.

Could this happen to you?

> What sort of reliance does your team have on electronic mapping systems when planning to complete an excavation?
> When completing an excavation at what distance do you positively identify known infrastructure?
> What sort of ground truthing could your team complete to identify unknown services before excavation?