Remedial Construction – Pipeline Abandonment
Former Military Facility, Northern California
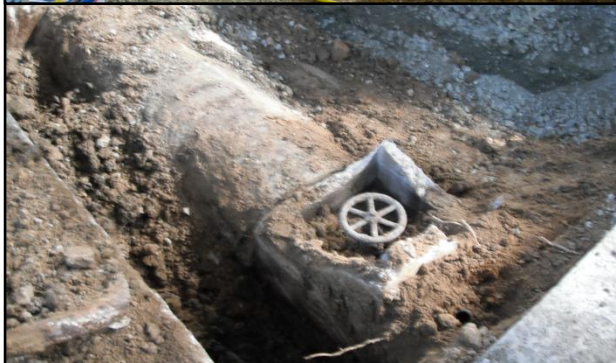
Terraphase, on behalf of a confidential developer client, conducted a subsurface investigation and abandonment of a former underground fuel-oil pipeline system within a large building at a former military facility in Northern California.

A building, covering an area of approximately 84,135 square feet, was constructed in 1919 as part of a single superstructure with adjacent buildings. It was used as a forge shop and metalworking facility. An above-ground pipeline system was used to supply equipment within the forge shop with fuel oil. Drop pipes from the above-ground system entered the subsurface and were then routed to the various pieces of equipment within the building. At some point the system was not longed being used, but it was never properly abandoned.

The pipelines, ranging from 1.5 to 3.0 inches in diameter, were encountered during a soil removal action in 2010, and found to contain residual petroleum.

Terraphase was tasked with investigating the extent of the pipeline system, removing residual petroleum from the pipelines, and sealing the ends of the pipelines. Terraphase excavated down to the locations of the pipelines and then retained a private utility locator to trace the pipeline alignments. A video survey of the pipelines was also conducted.

Once the pipelines had been traced, the opposite ends of the pipelines were excavated. Pipelines that were found to be in reasonably good condition were vacuum tested to assess if they may have released petroleum to the subsurface along their alignments. Two pipelines were found to be intact. They were flushed with hot water containing a non-phosphate detergent and capped.

Terraphase conducted a follow-up subsurface soil and groundwater investigation along the alignments of the pipelines that were found to be in poor condition.

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