

ePIPE® Eliminates Lead (Pb) Hot Spot

PROBLEM: NEIGHBOURHOOD LEAD (Pb) HOT SPOT

On-going water quality checks by a major UK water utility identified what is commonly referred to as a "lead hot spot" in a residential estate. The hot spot involved 17 homes running along 2 streets. Water supply to these properties initially ran through a conventional 75mm (3") cast iron main that connected to a shared service lead pipe and lead communication pipes. The lead pipes varied in diameter from about 15mm to 50 mm (½"-2" ID). The shared service line and the communication pipes were 100% lead. **Earlier random daytime testing (RDT) for lead at the customers tap averaged above the 10 µg/l regulatory limit, triggering the requirement to deliver a solution quickly.**



The replacement of the approximate 162 metres (530 ft) of the shared service lead trunk line, 17 lead communication pipes and other utility side lead contributors by conventional open cut excavation methods would have resulted in the interruption of parking and access to private properties and closing the street for significant durations, including the intersection with the main feeder road (a bus route). Customer water supply interruptions and the provision for temporary water supplies were also a main consideration. Due to the location and close proximity of other underground services and ground conditions, moling was not a viable option, corroborated by an earlier failed attempt some months prior to replace a single communication pipe using this method.

OUTCOMES: ePIPE - LEAD (Pb) HOT SPOT ELIMINATED

Prior to the ePIPE process, lead measured at the customer tap on average exceeded the 10 µg/l cut off limit.

Post ePIPE, RDT testing at the customers tap showed an average 5.11 µg/l of lead, well below the 10 µg/l cut off.

Post ePIPE RDT testing at the boundary box, the limit of lining for this project, showed full compliance with an average result of less than 3µg/l.

Traffic disruption was minimized, there were no road closures and only minimal excavations for access were required.

All customers' water supplies were returned to full service within the notified and scheduled cut off period and there were no restrictions applied in accessing roads, parking or properties during the completion of the works.



About PRS

Pipe Restoration Services, is an award winning joint venture between UK's Morrison Utility Services and USA's, Pipe Restoration Technologies, LLC. Morrison Utility Services is one of the UK's leading utility service providers. Pipe Restoration Technologies, LLC., (PRT), www.epipeinfo.com focuses on development of product, equipment and process methods used in the business of in-place epoxy pipe lining. PRT services are provided in Europe, US, Canada, and Latin America. PRT holds multiple process patents with an ongoing portfolio of patents pending.

UK ePIPE provider, Pipe Restoration Services (PRS) can be contacted at www.piperestorationservices.co.uk