McDonalds Kidderminster
Leak Detection Site Survey

11th July 2012

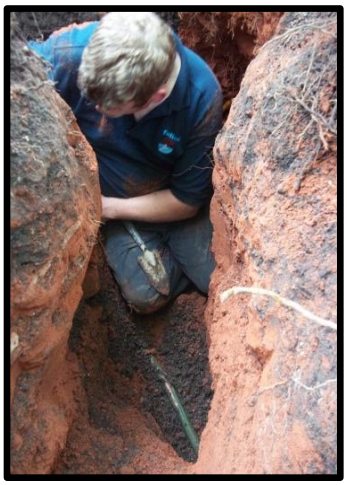
Supplier: Severn Trent

Pic 1 - Gas Detection Survey

A visit was made to the McDonalds Kidderminster site on Monday 9th July. This visit was planned to enable us to carry out secondary underground water leak detection survey work after potential leakage was identified within large undergrowth.

We started by isolating the water supply at the meter site as well as isolating the internal stop tap to the restaurant. Once we had done this, we carefully began to inject the leak tracing gas via a hose tap located next to an external store room.

Within a short period of time, there was a noticeable increase in the rate of gas injection which indicates that the tracer gas had started to escape from a leaking pipe. A subsequent gas detection survey produced a significant point of interest in the area of vegetation behind the gas meter chamber.

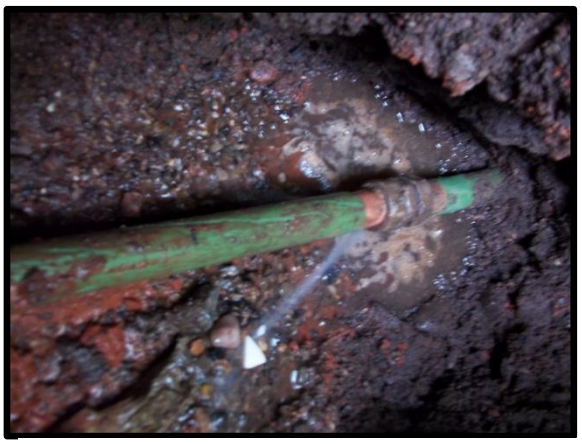


Pic 2 - Excavation Site Depth of 1.1m

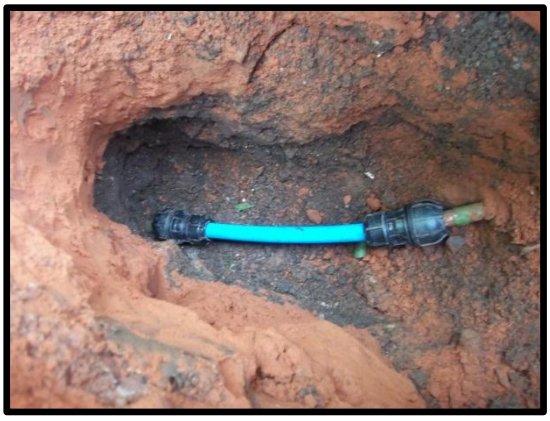
Having found this point within a short period of time, it was felt that excavation and repair could be attempted within the remaining time we had available on site. Our plans were passed to the duty manager who agreed that one prolonged isolation would be better than two separate isolations.

Excavation commenced and although ground conditions were in our favour, the depth of the excavation was over 1.1 meters. (See picture 2) Initially there was some difficulty in locating the water pipe as it was not expected that we would be digging to a depth of this kind. The pipe was eventually exposed and found to be a 28mm copper supply.

Now that the pipe had been located, the excavation was carried out further along the line of the pipe and exposed a compression joint containing the offending leak. (See picture 3)



Pic 3 – The compression joint containing the leak



Pic 4 – The 32mm replacement plastic pipe that repaired the leak

Pic 5 – The excavation area has been backfilled and fully re-instated

The offending joint was cut out and replaced with a section of 32mm plastic pipe. The water supply was then restored at the meter which brought about a stationary meter register thus indicating that all leakage had been rectified.

The excavation was then backfilled and reinstated by the time we were leaving site.

Recommendations

- Take regular readings of meter to check consumption doesn't increase. When carrying out the initial leak detection it was confirmed that the meter was registering 600 litres per hour, which equates to £13,140 savings going forward.
- We would act on your behalf with the water supplier in securing you a leakage allowance refund. This is the water that is lost into the ground and has not entered Severn Trent Waters' network.