

10th April 2012

<u>Thorntons</u>, <u>Alfreton – Further Leak Detection 7th April 2012</u>

We attended site on Saturday 7th April 2012 as agreed that this was the most convenient time and date for the client over the Easter weekend.

On arrival the meter was reading 527,697m³ and the flow rate was around 5,000 litres per hour. Chris met us on site and walked us along the line of the main showing us the valves, hydrants and stop taps.



Pic 1 - Water Meter as at 7th April 2012



Pic 2 - Location of Stop Tap - 1st Leak

We located a stop tap outside Stanley House. We listened on this using an aquaphone and there is a good leak on the stop tap although this is so deep we could not shut off with a normal sized stop tap key. We are confident the leak is within 1m² of the stop tap. We lifted a telephone chamber nearby and there is clean running water getting into it and a chlorine test gave a strong positive result.



We continued the survey and listened on top of a cover that looked like a sewer/drain cover. There was a strong leak noise so we lifted the cover to reveal a 6" PVC main complete with ferrule and a 63mm branch. On the 63mm branch there is a wheel valve then a philmac elbow, the supply then crosses the road to the offices opposite. There is a serious leak on the philmac elbow within the chamber and we are confident that the leak is consistent with the losses being experienced.



Pic 3 - Meter Chamber with leaking elbow joint

We did continue with our investigations and whilst we didn't find any further leaks, we did identify a valve which was previously unidentified on site. Chris has marked the valve cover with paint for future recognition.

Recommendations

- Repair both leaks identified on site at stop tap & chamber.
- Annual Savings £60,000