



# Leakage Investigation Survey

**Client: College, Oswestry**

## Mains water meter information

|               |                                     |  |       |   |        |                  |         |  |             |  |
|---------------|-------------------------------------|--|-------|---|--------|------------------|---------|--|-------------|--|
| Size (mm)     | 15-28                               |  | 32-50 | ✓ | 75-100 |                  | 125-200 |  | Above 200mm |  |
| Serial number | 19JE122211                          |  |       |   |        |                  |         |  |             |  |
| Readings (1)  | 14161.213                           |  |       |   | Time:  | 09.44 18/02/2020 |         |  |             |  |
| Readings (2)  | 14161.665                           |  |       |   | Time:  | 09.49 18/02/2020 |         |  |             |  |
| Location      | Meter in woodland, double split lid |  |       |   |        |                  |         |  |             |  |

## Leakage Activities

|                   |                          |             |  |                   |          |                          |   |
|-------------------|--------------------------|-------------|--|-------------------|----------|--------------------------|---|
| Acoustic sounding | ✓                        | Correlation |  | Ground microphone |          | Environmental Inspection | ✓ |
| Other             | Isolation of rising main |             |  |                   |          |                          |   |
| Pipe traced       |                          | CAT & Genny |  |                   | Distance |                          |   |
| Pipe correlated   | Accelerometer            |             |  | Hydrophones       | Distance |                          |   |

## Background Information

Continuous usage and high consumption figures

# Activity Summary

## Leakage Survey Activities



Pic 1



Pic 2



Pic 3



Pic 4





Pic 5



Pic 6

On arrival at site we met the client and he informed me of the main issues at site.

We were shown the location of two meters both located in woodland adjacent to the college

On checking both meters meter 19JE122211 (pic 1) was registering a flow rate of 90 litres per minute which equates to **5.4m<sup>3</sup>** per hour or **130m<sup>3</sup>** per day which equates to (if billed at the normal Water Plus STW rate) **£340 per day** which equates to **£124,319 per year**.

Based on this we continued to check around the site for the run of the pipe and any stop tap that could be found.

There is a small school located within the college grounds and its water is supplied through this meter.

During our investigations we came across two stop tap boxes (Pic 2&3) one of the stop taps was leaking considerably at an estimated rate of 2 litres per minute, which equates to 2.8m<sup>3</sup> per day.

This was marked in blue for repair.

On further investigation we came across what was at first thought to be a sewer manhole but after removing the lid it was noted that there was a 50mm MDPE pipe complete with stop tap (pic 4).

This was sounded and had a very strong leak noise on it. After being escorted into the school grounds further investigations were carried out where a significant leak noise was detected along the kerb and in the plant room of Jackson House, further sounding was carried out along the route of the supply pipe and the leak pinpointed in the grass verge and marked with blue paint (Pic 5&6)

**Summary & Recommendations**

Summary:

Excavate on stop tap and replace or repair leaking tap

Excavate in grass verge and repair leak on 50mm MDPE supply pipe.

To repair both leaks on the marks as stated by for the sum of £XXXXXX + VAT.

The repair crew to be DBS certified

**Survey carried out by**

|          |                       |      |                                |
|----------|-----------------------|------|--------------------------------|
| Engineer | H2O Building Services | Date | 18 <sup>th</sup> February 2020 |
|----------|-----------------------|------|--------------------------------|