



# Leakage Investigation Survey

**Client: Poole, Dorset**

## Mains water meter information

Size (mm)	15-28	✓	32-50		75-100		125-200		Above 200mm	
Serial number	Internal Meter Serial Number - 98A151235 External Meter Serial Number - 02591234									
Readings (1)	437.813 920.008				Time:	08:27	6 <sup>th</sup> August 2018			
						08:52	6 <sup>th</sup> August 2018			
Readings (2)	437.813 920.021				Time:	08:30	6 <sup>th</sup> August 2018			
						08:55	6 <sup>th</sup> August 2018			
Location	Internal Water Meter is located in ladies toilet. External Water Meter is located on Footpath at front of property									

## Leakage Activities

Acoustic sounding	✓	Correlation	✓	Ground microphone	✓	Environmental Inspection	✓
Other							
Pipe traced	CAT & Genny				Distance		
Pipe correlated	Accelerometer	✓	Hydrophones	Distance	43.1m		

## Background Information

The Water Leak was first noticed in Early June 2018, the Water Wholesaler performed test on 19 June 2018 confirming a identifying leak on private supply pipe, leak was also visible in the middle of the car park.

An excavation has been conducted on site, by another contractor where the supply pipe over a 2 day period was unable to be located. The slip trench was dug to a depth of 750mm 1800mm length and 650mm wide.



H2o Building Services were contacted to conduct a leakage investigation on this property as the client had previously employed another contractor who had only excavated the main drive in front of the site.

## Activity Summary

### Pipework & Metering

There are currently two water meters monitoring the consumption to this property one Internal and One External water company revenue meter.

The Internal Water meter is located in the ladies toilet, the meter was not moving, the incoming supply is 22mm black poly, this is the meter charged on the account, the external meter is not charged by the water company.



The External Water Meter on the footpath by the property boundary. The meter is moving. With the Internal supply isolated. The water loss was calculated to be 160 litres per hour, 3840 litres per day, this meter is not charged to the client account



Suggested line of supply as indicated by the cones



## Leakage Survey Activities

An Acoustic sounding of the internal and external water meter was conducted, a slight noise could be detected. The excavation was inspected and a slight water movement could be seen. The excavation was pumped out and the flow of the water could be seen traveling from direction of the building towards the property boundary



Due to the supply being non-metallic and no access points, we were unable to conduct a positive pipe trace.

Two Leak Noise Acoustic Correlation were conducted, along an assumed pipe route. Both gave a positive reading with an indication of 16.4m and 17.1m from the rising supply



Surface sounding was completed with a listening stick and electronic ground microphone, highlighting the best noise near to the existing excavation



The best source of surface noise was marked with the centre position being 2.1m from the existing excavation and 2.7m from the boundary fence.



## Leakage Investigation Survey

### Summary & Recommendations

The water leak has been localised approximately 2.1m from the existing excavation.

#### Recommendations:

To excavate over the marked area and locate the water supply, due to the current depth of 750mm of the existing excavation the water supply may be at a greater depth.

Locate the water supply unearthing the leak and repair.

**Please note this quotation is an estimate and all quotations are subject to change as per above.**

**Our cost to carry out the above works is xxxxx + VAT**

**Payback period 2 months.**

### Survey carried out by

	H2O Building Services	Date	6 <sup>th</sup> August 2018
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