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SOLUTIONS

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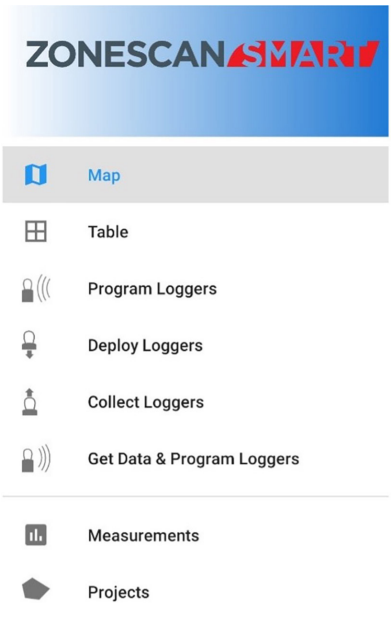
PROFESSIONALS

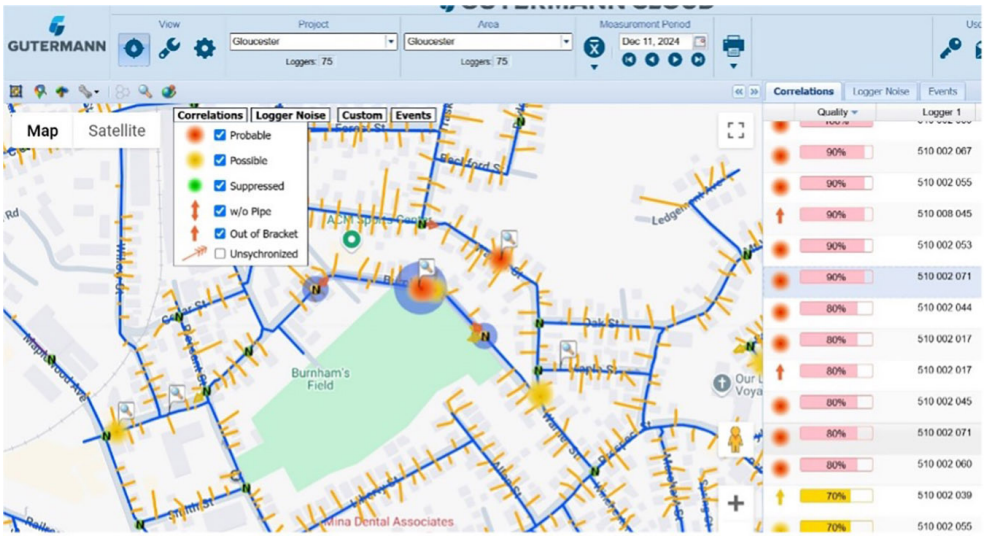
# Case Study | Proactive Leak Surveying | Williamstown, PA

ZONESCAN 850
Correlating Leak Noise Logger


- ✓ Fully waterproof IP68 with 100% Stainless Steel enclosure
- ✓ Integrated lithium-ion field replaceable batteries
- ✓ Compact design offers the ability to deploy loggers in smaller locations, such as curb boxes
- ✓ Correlation capabilities that allow for very accurate leak locations
- ✓ User-friendly ZONESCAN SMART app allows loggers to be preprogrammed to a specific time of day and duration to turn on and record their data
- ✓ Loggers record the decibel (DB) level and chart a DB reading every 10 seconds through-out the duration of recordings (which is typically 60 minutes)
- ✓ Loggers also do (3) separate correlation recordings with an interval between them to rule out random service usage
- ✓ Ability to record up to 30 consecutive days of leak noise
- ✓ Data is uploaded to a secured cloud-based server (www.zonescan.net)
- ✓ Zonescan.net allows the utility to print reports and document your leak detection efforts
- ✓ Ability to import your GIS and piping data in KML format




Zonescan.net



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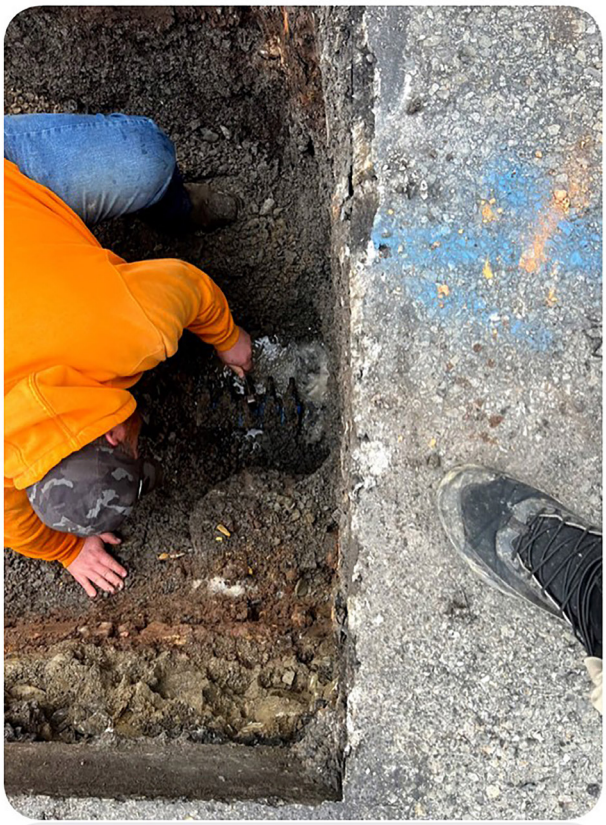
## Williamstown, PA:

In efforts to manage water loss in their distribution system, Williamstown's leak detection team systematically canvases their water system using the Gutermann Zonescan 850 Loggers. These loggers are deployed valve to valve searching for any hidden leaks on service lines, main lines, and leaky valves. As part of their proactive leak detection survey, Williamstown's leak detection team discovered an unknown leak.

Loggers were deployed, and the data provided a strong correlation, which prompted them to investigate further with a ground microphone. Due to the extremely accurate pinpointing ability of the correlation loggers, the leak detection team excavated the location, and a leak on a previously repaired pipe was discovered. Since the leak was found proactively, it was scheduled and repaired during normal working hours.



Leak on W. Market St. and Orange St. Gutermann was dead on!!!! Roughly 30 gpm.

Photo of the break in the 8" Ductile Iron Pipe

Photo of the repaired water line

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# CORRELATION & LOGGER REPORT:

One of the benefits of the Gutermann survey loggers is that you can create a Correlation OR Logger Report at the click of a button, which Williamstown did for the pinpointed leak. These Correlation Reports will provide the leak technician with all the necessary information to further investigate and will provide measurements from each logger to a potential leak location. Technicians can "wheel off" the measurement and then carefully listen with an acoustic ground microphone to confirm the pinpointed location on the report.

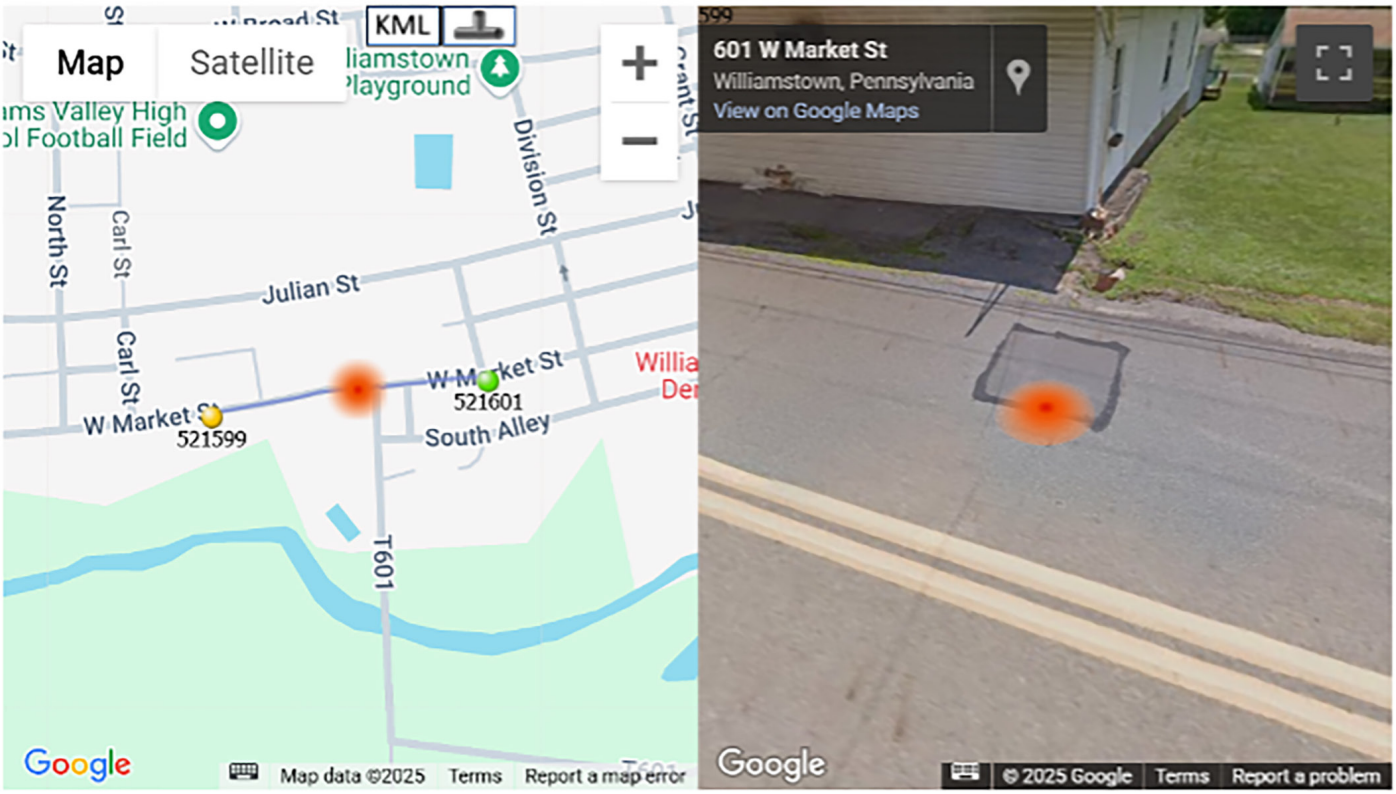
Below is an example of a leak report generated by the Gutermann Cloud Website.

<u>Notice the similarity in the Street View image showing the red correlation (leak location) and previous leak "patch."</u>

## ZONESCAN NET Correlation Report

Williamstown Jan 3, 2025 (Report created on Mar 5, 2025, 9:42:30 AM)

**Correlation: 521599 - 521601**

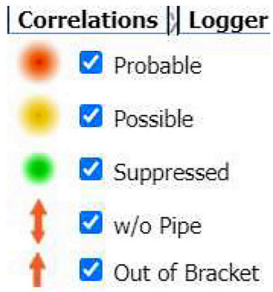



**Correlation**

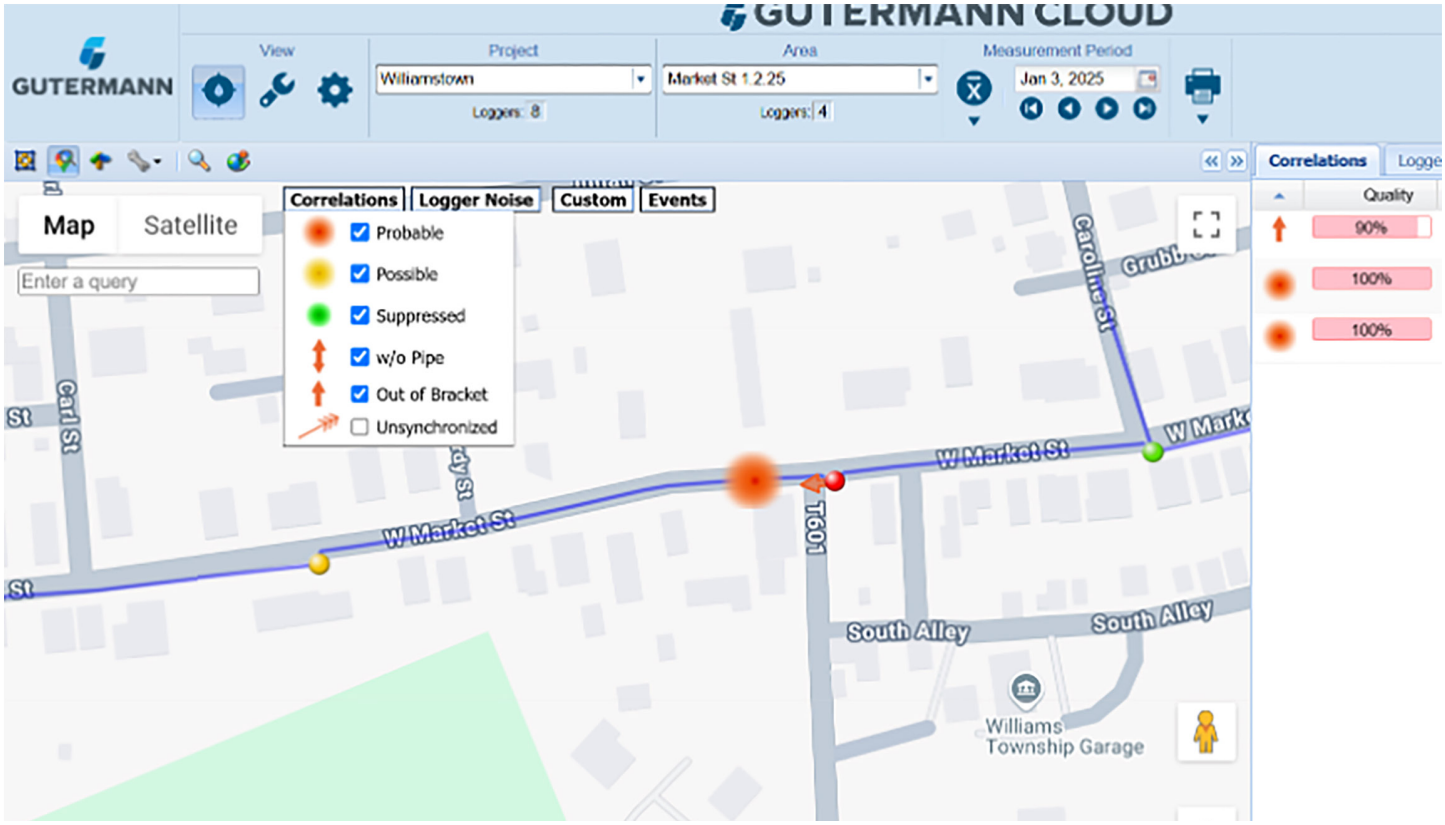
| Quality | Location | Logger 1 | Logger 2 | Dist. L1 | Dist. L2 | Center Dist. | Pipe Len. | Comments |
|---|---|---|---|---|---|---|---|---|
| 100.0 | 600 W Market St, 40.579115° -76.626214° | 521599 | 521601 | 462.5 ft | 419.1 ft | 21.7 ft | 881.6 ft | |

# CORRELATIONS TAB:

The Gutermann Cloud compares all data and will automatically display a Correlation “blister” if a potential leak is in between two loggers OR a “single arrow” if the potential leak is outside two loggers. This means that two loggers are hearing a similar leak frequency.

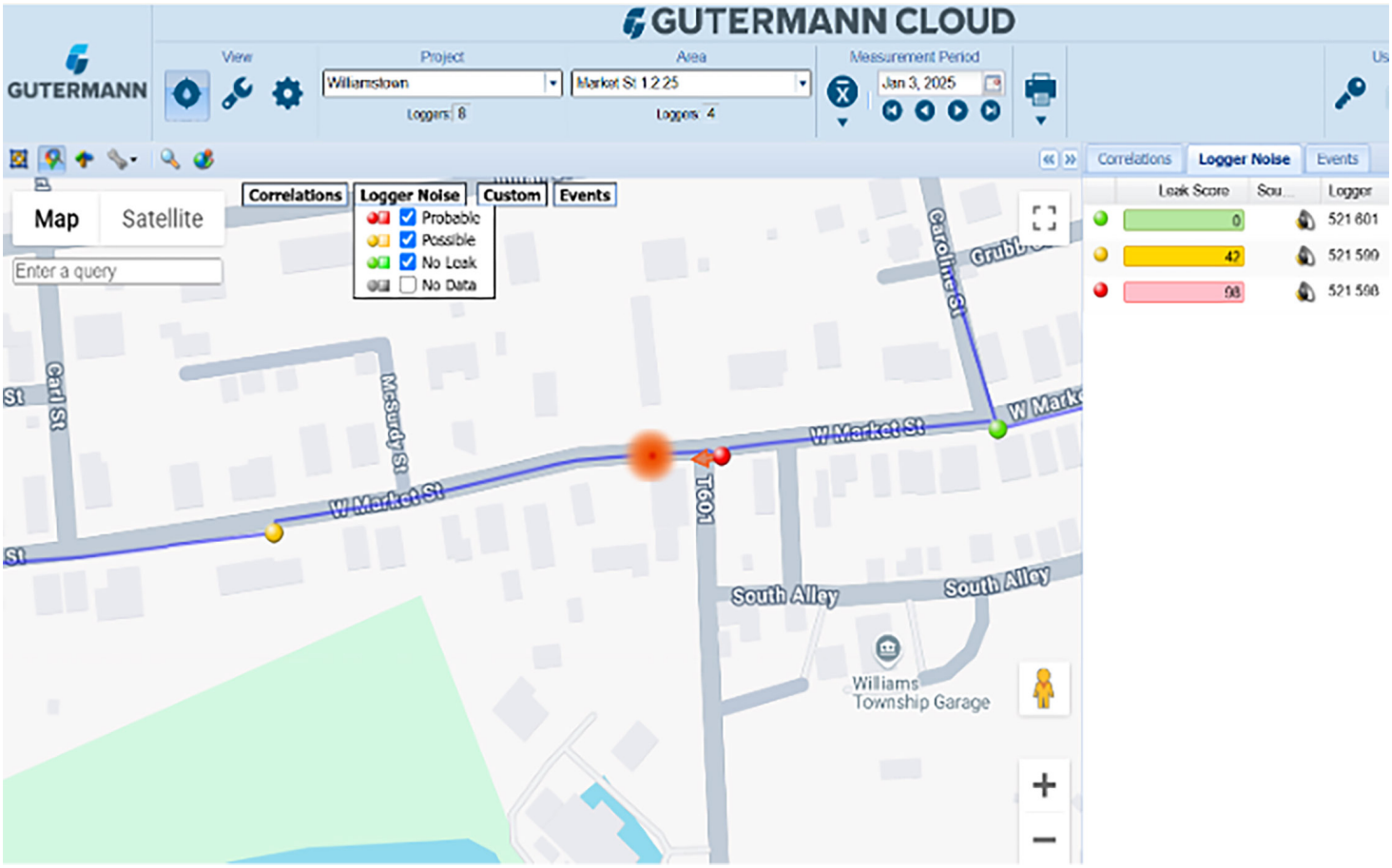



It is then the leak technician’s responsibility to further investigate and determine if a leak or no leak is present. This is typically completed with an Acoustic Ground Microphone.



## LOGGER NOISE:

In addition to the Correlation, the Gutermann Cloud will also provide each logger with a “leak score.” The leak score is based on a numbering system of 0-100. 0 being quiet and 100 very loud. The difference in color is preset as follows. Below 40, green / below 80, yellow / 100 and below, red.




## TEAM EJP TERRITORY COVERAGE:

Team EJP’s Smart Utility Professionals provide solutions throughout New England, New York, New Jersey, Pennsylvania, Ohio, Indiana, Michigan, Illinois, Kentucky, West Virginia, and Canada.