

# 10th Quarterly Report – Public Page

Date of Report: February 29, 2016

Contract Number: DTPH56-13-T-000002

Prepared for: DOT Pipeline and Hazardous Material Safety Administration

Project Title: Real-Time Multiple Utility Detection During Pipe Installation Using Horizontal Directional Drilling (HDD) System

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## Results and Conclusions:

The new noise maker has been designed, manufactured and tested. The new design uses rod-in-rod system used in the existing directional drilling system. Several pieces of metallic disks/caps were made and fitted to the existing acoustic sensor modules. These external weighting mechanisms were made of stainless steel and additional weight did assist the sensor module to have a tighter coupling effect. The new noise source was used in the local area trials conducted with the improved acoustic system. The total of 489 data points were analyzed from the local area tests. The acoustic-only system is providing the pipe detection and reasonable accuracy in real-time.

## Plans for Future Activity:

- Submit the draft final report.
- Arrange a final virtual meeting with the PHMSA with input from the PHMSA Technical Manager.
- Incorporate comments and publish the final report.