

8th Quarterly Report – Public Page

Date of Report: August 28, 2015

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 design has been initiated. The new design will use rod-in-rod system used in the existing directional drilling system. In this new design, the inner rod can be rotated independent of the outer rod and can be used to rotate a shaft which has a hammer assembly installed. Anvils will be welded into the outer case, projecting into the interior of the housing where they will be struck by the rotating hammers. The new design is expected to produce considerable more acoustic energy for transmission into the ground to detect buried pipes.

Plans for Future Activity:

- Continue work on the new noise source driven by mud motor, test the noise maker, and fully implement the noise maker for use with the directional drilling system.
- Improve coupling of acoustic sensors used with the detection system and finalize the detection system.
- Write monthly and quarterly reports.