



## Cathodic Protection Current mapping In-Line Inspection Tool

DTPH56-05-T-0005

### PHMSA ACCOMPLISHMENTS

**Pipeline and  
Hazardous  
Materials Safety  
Administration**

**Pipeline Safety  
Research and  
Development**

**Technology  
Development  
for  
Improved  
Corrosion  
Mitigation**

#### Contact

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#### Project Abstract

The objective of this project was to develop a commercially viable in-line inspection tool that measures current traveling in the pipe due to cathodic protection or stray current from sources other than the pipeline system's cathodic protection system.

The data will provide information used to diagnose problems with the cathodic protection system and coatings.

PHMSA Funding: \$401,000

Public Project Page

<https://primis.phmsa.dot.gov/matrix/PrjHome.rdm?prj=178>

#### Commercial Partner

**Baker Hughes PMG**

**Telephone: (281) 230-7100**

<http://www.bakerhughesdirect.com>

#### NET Improvement

This In-line Cathodic Protection Inspection tool is the first method to assess the effectiveness of a pipeline's cathodic protection system from INSIDE the pipe.

- Assessment of sections previously unreachable from the surface
- Timely inspection without physically walking the pipeline
- Closer interval data collection to improve data resolution
- Reduced exposure of workers to harsh environments
- Rapid integration of data with other datasets
- Assessment of the condition of the entire CP system without gaps, regardless of location.

**US Patent under DOT Contract:**

7,104,147B2 & 7,317,308B2



Courtesy: Baker Hughes

<https://primis.phmsa.dot.gov/rd/performance.htm>