PROJECT PROFILE
PIPELINE AC INTERFERENCE AND MITIGATION

audubon

Client: **ONEOK** | Location: **WOODWARD, OKLAHOMA**

For ONEOK pipelines outside Oklahoma City, Oklahoma, Audubon performed an alternating-current (AC) interference and mitigation study to ensure asset integrity and prevent corrosion. The pipelines were intended for collocation with two proposed high-voltage AC (HVAC) overhead transmission lines, MINCO4 and MINCO5.

Pipeline services incorporated Elsyca Inductive and Resistive Interference Simulator (IRIS) software to identify levels of AC interference on the pipelines under average and peak loads. The Audubon team used study findings to design and simulate an AC mitigation system for safety, corrosion, and compliance. The studied risks included

- safety under steady-state and fault conditions
- coating stress voltage and pipeline integrity under fault conditions
- AC corrosion under steady-state conditions
- arcing between tower footing and pipeline under fault and lightning conditions due to systems' proximity

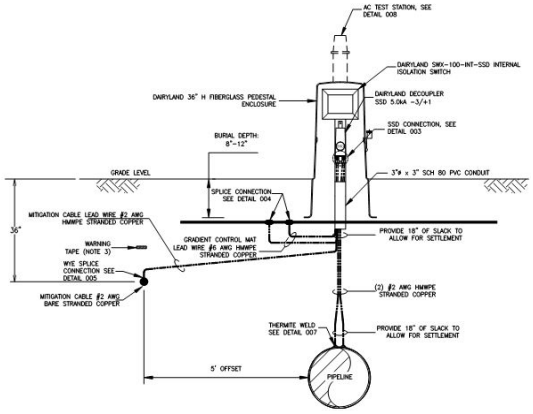
Audubon's study and design ensured integrity and safety to mitigate corrosive damage along ONEOK's pipelines.

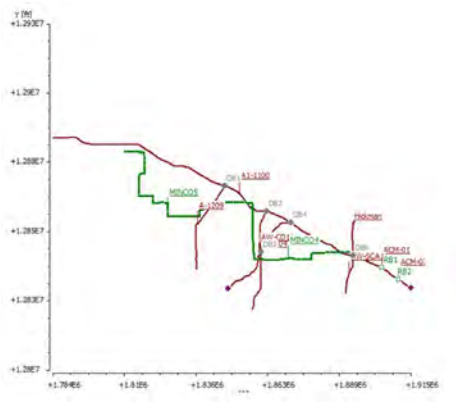
Project Overview

- Two pipelines collocated with HVAC overhead transmission lines
- IRIS software
- In-house Association for Materials Protection and Performance (AMPP) certification
- Submeter GIS-integrated data
- Secure web-based project portal

Scope of Work

- Asset integrity & corrosion prevention
- Project management
- Field, HVAC, & pipeline data collection
- Simulation & analysis
- Detailed conceptual design for construction
- Regulatory compliance





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