

Corrosion Protection of Five Buried Pipe Casings using Zerust's Zerion® FVS Powder, & PGH-300 & 400 Gels

Project Specifics

Installation Dates

January 2023

Location

Texas, USA

Environmental Conditions

Avg. Temp. 73°F, ~30% humidity, dry and sunny

Asset Details

- 1: Casing Dia. 8", Carrier Dia. 6", Length 112-ft
- 2: Casing Dia. 6", Carrier Dia. 3.5", Length 128-ft
- 3: Casing Dia. 8", Carrier Dia. 4.5", Length 128-ft
- 4: Casing Dia. 6", Carrier Dia. 3.5", Length 88-ft
- 5: Casing Dia. 6", Carrier Dia. 3.5", Length 95-ft

Vessel Construction: Buried pipe casings; pressure tested, 2 vent pipes.

Zerust Product(s) Used

Zerion® FVS Corrosion Inhibiting Powder
Zerion® PGH-300 Corrosion Inhibiting Gel
Zerion® PGH-400 Corrosion Inhibiting Gel
(2) ER Probes and (1) Remote Monitoring Unit (RMU)

Problem

The client wanted corrosion protection for five buried pipe casings.

Vessel Construction

All pipe casings were buried upon arrival and had already been pressure tested. All pipe casings had two (2) 2" vent pipes with 180° candy cane tops welded on. All pipe casings are assumed to have no (or min.) elevation changes (end-to-end) and, per a conference call with the contractor, each is also assumed to have new end seals in suitable condition for this project.

Solution Specifics

This project includes the application of a corrosion inhibitor solution (composed of a mixture of Zerion FVS corrosion inhibitor powder, Zerion PGH corrosion inhibitor gels and clean, potable water) into a total of five (5) pipe casings.

Also, originally part of the scope of this project was the installation of an RMU with ER probe for corrosion monitoring on two (2) of the pipe casings (1 & 5).



Solution Specifics Continued

The ER probes were supplied by Zerust but the RMU equipment was to be supplied by the client. At the time of implementation of this project, the RMUs were not available, therefore the ER probes were not installed but were retained by the contractor. Following a visual inspection of each of the assets, the corrosion inhibitor solution was mixed and injected. The injections were able to be carried out under 5-PSI and for each asset, corrosion inhibitor solution was injected through one (1) vent pipe until solution was apparent on the opposite vent pipe.

Results

The corrosion inhibitor solution application for each pipe casing went smoothly with no issues. As noted in the preceding section, two (2) of the pipe casings were to each have an RMU with ER probe installed for corrosion monitoring but this was not done at this time because the RMUs were not yet available. It is recommended to return to each of these assets, once the RMUs are available, to install the corrosion monitoring equipment.