

## Pipe Casing Injection for Corrosion Protection of Casing Crossing State Highway

### Project Specifics

Installation Dates  
August 19, 2020

Location  
Oklahoma, USA

Environmental Conditions  
Sunny, 60% humid, and 85°F.

Pipe Casing Construction Details  
Casing Diameter: 30"  
Pipeline Diameter: 24"  
Length: 88'

Zerust Product(s) Used  
Zerion<sup>®</sup> FVS Corrosion Inhibitor Powder  
Zerion<sup>®</sup> PGH-300 Corrosion Inhibitor Gel

### Vessel Assessment

The casing crosses a state highway. Both vent pipes were installed on the top of the casing. It should be noted that prior to the injection, the end seal was excavated and refitted with Handi Polyurethane foam and a Stopaq material and a 5 psi pressure test was completed. This excavated end was back filled and covered after VCI injection.

### Conclusion & Recommendations

The 2" vent pipe used for the injection had to be fitted with Y-section bypass and air pressure relieve adapter. A threaded coupler with Banjo type fitting was used to connect eductor filling equipment.

The other 2" vent pipe only was used for monitoring and to purge the air from the casing during VCI/Gel injection. The injection went very well. FVS solution was mixed with water and a bit over half of those pails of PGH-300 was able to be added to the inhibitor slurry during the injection. It was necessary to bleed the air out of the casing that was trapped due to geometry of pipe line after injection. A small amount of FVS solution was lost due to this process. A person stood watch over the opposite side of the casing to see if there was any discharge. The discharge material was reported and injection of slurry was completed.

The pipe casing was filled up to 95% with roughly 750 gallons of VCI/Gel slurry and the project completed successfully.

