Zerust® Protects AST using Underside Injection with ER Probe Monitoring

CLIENT APPLICATION
Tank Underside Injection | June 2017

Project Summary:

- NTIC® Zerust® Oil & Gas, in collaboration with another services company, was awarded a project encompassing the injection of a corrosion inhibiting solution beneath one tank with diameter of 110'.
- The targeted tank located in a temperate and humid climate was constructed atop a compacted sand foundation with a surrounding concrete ring wall. The tank is surrounded by a gravel foundation and, upon arrival, it was found that the gravel around the existing leak detection ports had been removed.
- The chime of the tank was sealed with a chime seal system, also done prior to Zerust arrival. This vessel was initially installed with an active cathodic protection system but this system as recognized as no longer in operation.
- In addition to providing consultation services during the injection process, the scope of work for this project included the installation of ER probes for corrosion monitoring.

Zerust® OIL & GAS
WORLDWIDE CORROSION SOLUTIONS

Goals and Objectives:

- Assembly and installation of ports for corrosion inhibitor slurry injection
- Injection of corrosion inhibitor slurry
- Assembly and installation of ports for the installation of ER probe monitoring units
- Installation of ER probe monitoring units

Product(s) Used:

- Zerion® FVS Dry Powder

Outcome:

- A total of 750 gallons of water mixed with 20 pails of FVS corrosion inhibitor powder was injected beneath the targeted tank. The initially proposed volume of slurry for injection was based on an incorrect sand depth beneath the tank.
- Upon arrival at site, the sand foundation was inspected and the depth was found to be approximately 8", rather than the 16" that was previously communicated. The corrected depth was verified by the Zerust Oil & Gas team and the amount of corrosion inhibitor slurry was adjusted to provide adequate corrosion protection.
- The remaining batches of slurry can be adjusted as necessary for lower concentrations.
- Finally, it is recommended to use a diaphragm pump with a bypass line as the percussive action can overcome the backpressure produced in the sand bed.

Injection Port

Injection System

ER Probe Part