

Zerust® Protects Tank Roof from Corrosion and Installs ER Probe Monitor

Zerust® OIL & GAS
WORLDWIDE CORROSION SOLUTIONS



CLIENT APPLICATION *Tank SSB IDS Underside Injection | December 2017*

Project Summary:

- The NTIC® Zerust® Oil & Gas team was awarded a project aimed to provide corrosion protection for tank rooftop steel plates.
- One tank at this facility was scheduled for corrosion protection utilizing volatile corrosion inhibitor (VCI) technology.
- The other two tanks used for comparison and did not receive corrosion protection.
- Electrical Resistance (ER) probes were installed on all tanks that will be used to record the corrosion rates associated with each tank.
- After a period of approximately 1 month, the ER probes had reached the end of their probe life.
- The rooftop dispenser ball valves were closed after approximately 2 months due the loss of ER probe monitoring.
- It was decided to install another ER probe on tank 1001 to monitor the baseline corrosion rate after the ball valves were closed and allow 1 month for the inhibitor to escape from the tank head space.

Project Summary Continued:

The breakdown of each tank is described below:

- Tank 1001: Corrosion inhibitor dispenser system was isolated approximately 1 month prior to Zerust Project Manager arrival. Installed new CT50 ER probe to monitor the baseline corrosion rate with the rooftop dispensers closed.
- Tank 1002: No corrosion protection system installed, no ER probe installed for this site visit.
- Tank 1003: No corrosion protection system installed, no ER probe installed for this site visit.

Goals and Objectives:

- A number of goals were targeted for this project. These goals include:
 - 1. Install a new CT50 ER probe on tank 1001
 - 2. Check the level of corrosion inhibitor remaining inside the bottles on tank 1001

Product(s) Used:

- 10' ER Probe, Metal Samples ER0500, CT50

Specifications:

- TANK 1001, DIAMETER 52'

Outcome:

- An Electrical Resistance (ER) probe was replaced on tank 1001 with a CT50 probe, compared to the previous CT20 probe, to allow for a two times longer probe life. Probe readings will be taken daily for approximately 1-2 weeks to establish a baseline corrosion rate with rooftop dispenser ball valves closed. The valves will be reopened with continued daily measurements to compare corrosion rates before and after inhibitor introduction into the tank head space.



Corroded ER Probe



ER Probe with Cable