



Quality Focused, Service Driven.

## FENCE TO FENCE THE COMPLETE TERMINAL PACKAGE

MESA's expanding services division encompasses engineering, cathodic protection and integrity services for tanks, terminals, and pipelines. From assessment to maintenance, including analysis, installation and corrective action, MESA provides the expertise, qualifications, and capabilities to satisfy virtually all corrosion control requirements. Fence to Fence, MESA is the complete integrity solutions provider for terminal operators.

MESA's approach for pipeline integrity is based on an ECDA process. Through the four-step process, MESA engineers and technicians provide comprehensive evaluations and develop remediation schemes designed specifically for terminal piping facilities.

Beginning with the initial evaluation of the existing cathodic protection program, MESA gathers information from single bottom and double bottom tanks, as well as tanks equipped with environmental liner. Our tank evaluation plan ensures that every tank is assessed and corrective action is developed to either meet industry standards or your specific policy and accepted criteria.

MESA's installation crews provide a unique combination of technologies, equipment, skills, and experience, which enables us to evaluate and implement appropriate corrective actions. MESA designs and installs corrosion rate probes and/or vapor-phase corrosion inhibitors to control corrosion within the inaccessible interstitial space on double bottom tanks, or those equipped with environmental liners. MESA's horizontal directional drilling equipment provides the capability to design and install under-tank reference electrodes and replaceable cathodic systems for new and existing ASTs.

The knowledge and experience of MESA's team ensures that your project will be completed timely and correctly, with follow-up measures identified to ensure the continued success of your corrosion control and integrity program. MESA's comprehensive CP and integrity expertise enables us to complete any job safely and with complete confidence.

Call us today for an assessment of an existing terminal, pipeline, or other application.



[mesaproducts.com](http://mesaproducts.com)

1.888.800.MESA (6372)

<b>Underground and Above-ground Piping</b>	<b>Above-ground Storage Tanks (ASTs)</b>
<ul style="list-style-type: none"> <li>• Step 1: Pre-Assessment (Data Gathering)               <ul style="list-style-type: none"> <li>• Determine Feasibility of ECDA</li> <li>• Selection of Regions</li> <li>• Define Assessment Tools</li> </ul> </li> <li>• Step 2: Indirect Inspection               <ul style="list-style-type: none"> <li>• Pipeline Centerline, GPS, Flag</li> <li>• Close Interval Survey</li> <li>• Direct Current Voltage Gradient</li> <li>• Soil to Air Interface Evaluations</li> <li>• Electrical Isolation Piping Support</li> </ul> </li> <li>• Step 3: Direct Examination               <ul style="list-style-type: none"> <li>• Corrosion Mapping</li> <li>• Coating Condition</li> <li>• Ultrasonic Thickness Measurements</li> <li>• Visual Documentation</li> <li>• Magnetic Particle Testing</li> </ul> </li> <li>• Step 4: Post Assessment               <ul style="list-style-type: none"> <li>• Remaining Life Calculations</li> <li>• Re-assessment Interval</li> <li>• Program Validation</li> <li>• ECDA Effectiveness</li> <li>• Root Cause Analysis</li> <li>• Continuous Improvement Evaluation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate Existing Cathodic Protection Program               <ul style="list-style-type: none"> <li>• Gather CP information</li> <li>• Type of Tank Bottoms                   <ul style="list-style-type: none"> <li>• Single Bottoms</li> <li>• Double Bottoms</li> <li>• Single Bottom/Liner</li> </ul> </li> </ul> </li> <li>• Evaluate Existing Tanks               <ul style="list-style-type: none"> <li>• Tank Bottom Evaluation Plan</li> <li>• Single Bottom Tanks and CP                   <ul style="list-style-type: none"> <li>-Install Reference Electrodes</li> </ul> </li> <li>• Double Bottom Tanks and CP                   <ul style="list-style-type: none"> <li>-Install Corrosion Rate Probes</li> </ul> </li> </ul> </li> <li>• Corrective Action               <ul style="list-style-type: none"> <li>• Set up Monitoring Program</li> <li>• Vapor-phase Corrosion Inhibitor (VpCI)                   <ul style="list-style-type: none"> <li>-Double Bottom</li> <li>-Single Bottom/Liner</li> </ul> </li> <li>• Add Cathodic Protection</li> </ul> </li> <li>• Assessment and Maintenance               <ul style="list-style-type: none"> <li>• Perform monitoring</li> <li>• Annual Survey and Assessment</li> </ul> </li> </ul>

