

# BlackDiamond® 8” Air/Ground Corrosion Repair in USA

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**Customer:** Natural Gas Pipeline Company

**Location:** USA

**Pipe Diameter:** 8”

**Design Pressure:** 1307 psi

**Pipe Contents:** Natural Gas

**Pipe Defect:** General External Corrosion and Pitting Around Air/Ground Transition

**Development:**

This gas gathering line was suffering from external corrosion and general pitting at the air to ground interface. Many miles of pipeline would have to be blocked in and purged in order to cut the line and weld in a fresh section of pipe. The result would be a costly repair with heavy equipment and lots of hot work, lost production time, and lost gas.

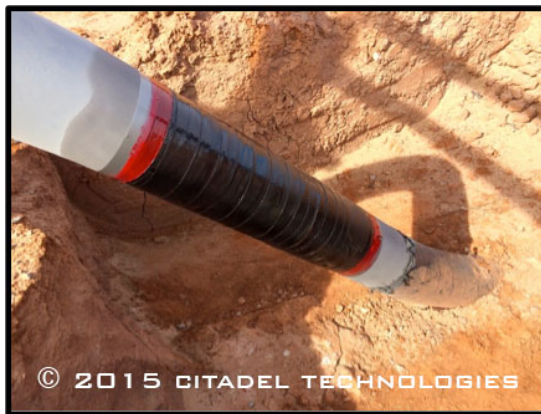


**Design:**

Citadel Technologies’ team of engineers designed repairs for each defect according to ASME PCC-2 Article 4.1, and recommended a BlackDiamond® repair solution. Only 4 layers of BlackDiamond® were required to repair the defect, even with the high design pressure.

**Installation:**

A small team of trained and certified installers installed 4 layers of carbon fiber over the specified repair area, according to the calculations prepared by the Citadel Technologies engineer. The actual installation time was less than an hour, with just two trained technicians. No heavy equipment or hotwork was required for the installation, and the line was in operation with no disruption in production. Below are photos of the completed repair:



**Conclusion:**

This pipeline was able to maintain full operation throughout the repair with no need to shut down or reduce capacity. Citadel Technologies successfully designed and implemented this permanent repair (50+ years) with a cost-effective and reliable solution.