

78' RENEWABLE DIESEL TANK | BIOREFINERY

DIESEL | MIDSTREAM



OVERVIEW

A biorefinery facility in Geismar, Louisiana required an API 653 inspection of its primary diesel storage tank. Taking the tank out of service would have triggered over 40 days of operational downtime, extensive cleaning operations, and significant unplanned expenditure.

SOLUTION

Square Robot deployed its submersible autonomous robot to perform a full in-service inspection. The robot navigated complex internal structures — including piping, supports, and sumps — to collect high-density phased array UT data across the tank floor while the tank remained 100% operational throughout the inspection.

OUTCOME

The robot achieved 85% floor coverage and established a 15-year inspection interval. The client avoided 42.6 days of operational downtime and over \$234,000 in cleaning and out-of-service costs, while significantly reducing the facility's environmental footprint.

KEY IMPACT METRICS

- ✓ Eliminated 382 confined space entry hours
- ✓ \$234,023 in documented cost savings
- ✓ 42.6 days of operational downtime saved
- ✓ 3,938 lbs of CO₂ emissions contained
- ✓ 85% floor coverage
- ✓ API 653 inspection interval of 15 years