



AIR LEAK CASE STUDY

RECAPTURING 9,000+ CFM AND REDUCING
\$675K+ IN ANNUAL LOSS

HOW A COMPREHENSIVE AIR LEAK SURVEY REDUCED COMPRESSOR LOAD AND OPERATIONAL COSTS

A leading U.S. oil and gas producer refining 340,000 barrels per day across a 1,500-acre facility engaged Hydrus Works to identify and eliminate costly compressed air inefficiencies. With over 1,400 employees and 1,000 contractors operating onsite, the scale of operations demanded measurable, high-impact results.

CHALLENGE

The facility relied heavily on portable and permanent air compressors to meet system demand. However, suspected air leaks were driving excessive compressed air usage, increasing operating costs, raising dew points, and adding unnecessary load to air dryers.

The objective was clear: Identify and quantify enough compressed air leaks to safely shut down multiple portable compressors and reduce dependency on a permanent unit.

SOLUTION

Hydrus Works conducted a comprehensive compressed air leak survey using advanced ultrasonic detection equipment.

Each leak was identified, tagged, and documented in a detailed Excel report outlining:

- Leak size
- Exact location
- Tag number
- CFM loss per leak
- Estimated annual dollar loss

RESULTS

The impact was immediate and measurable:

- 1,726 total leaks identified
- 13,424 CFM in total air loss
- \$688,308 in estimated annual loss

After repairs were completed:

- Multiple portable compressors were shut down
- One permanent compressor (over 9,000 CFM) was taken offline and retained only as backup
- Dew point was lowered across the compressed air system
- Air dryer load was significantly reduced

The goal was not just identification but actionable insight. By quantifying total system loss, the client could make confident operational decisions backed by data.