

Optimize Your Terminal Integrity Program



Tracer Tight[®] from Linde Services Inc. provides industry recognized leak detection and location capabilities for your terminal facilities

Linde provides leak detection service that can be used to enhance your terminal integrity program quickly and efficiently. *Tracer Tight* is the precision integrity testing service that identifies and locates leaks to a high level of sensitivity.

When downtime is not an option, you want a leak detection system that identifies leaks as small as one gallon per day and pinpoint leaks to within just a few feet. That is the kind of performance you can expect from *Tracer Tight*, the leak detection service provided by Linde.

The Tracer Tight service provides in-service precision integrity testing that identifies and locates leaks in underground piping and bulk storage tanks. The sensitivity of the *Tracer Tight* service allows for the detection and location of extremely small leaks. The early detection of a leak can significantly reduce the cost of remediation and environmental damage.

The flexibility of the Tracer Tight service allows underground piping and bulk storage tanks to be tested while in-service, during hydrostatic testing or out of service u sing nitrogen. Linde's *Tracer Tight* service can also be used proactively to reduce liability and risk by certifying underground lines and above ground storage tanks are leak free.



Tracer Tight Service Advantages

- → In-service testing of tanks and piping to save time and money
- → Finds leaks without excavation
- → Double bottom tanks can also be tested
- → Compatible with hydrocarbons, most chemicals and service water
- → Not affected by hydrocarbons in soil from previous leaks or spills
- → Probes remain in place for future inspections
- → Tracer A has approval from ASTM (ASTM D1655), and from U.K. Ministry of Defence (DEF STAN 91-091) for use in Jet A
- → Process is third-party certified and listed under U.S. EPA National Work Group on Leak Detection Evaluations (NWGLDE)

The *Tracer Tight* service is used by most petrochemical companies in North America because it is one of the most sensitive testing methods, compatible with site operations and it locates leaks without ever taking tanks or pipelines out of service.

The *Tracer Tight* service is effective for all types of installations, including tanks and pipes buried under pavement, concrete or buildings.

Linde Services is actively engaged in terminal integrity programs where all buried facility piping is tested. This testing easily identifies and locates active leaks before they become disruptive to operations or costly due to remediation and liability issues. Facility testing is conducted on all buried piping containing hydrocarbons, drain lines and service water lines.

Linde Services will work with customers to customize and scale the customer's terminal integrity program to suit the customer's specific need to retest the piping every three to five years depending on the finding of the initial test.





The *Tracer Tight* service works by inoculating a tank or pipeline with a small amount of tracer gas. Probes are installed under a tank floor or along buried piping that can collect soil vapor samples for analysis by a Linde expert technician. If a leak is present, it is easily detected by gas chromatography.

Placement of Probes

A unique, proprietary method of locating probes horizontally under tanks and vertically above the piping systems is completely safe and noninvasive.

Background Sampling

Soil gas samples are taken before tracer is introduced into the system to verify no other similar compound is present.

Inoculation

Tracer Tight trace gas is introduced into the tank.

Leak Simulation

A separate tracer gas may be used as a quality control measure and to determine soil permeability.

Sample Collection

After tracer has dispersed through the system, a Linde technician collects soil gas samples from the probes.

Sample Analysis

A gas chromatograph analyzes samples for the presence of the tracer gas. Detection of the tracer gas may indicate a leak is present.



Linde Services Inc. has the innovative applications and expertise to help you optimize your operations and reduce downtime with extensive service offerings for refineries, chemical plants, terminals and pipelines. Our offerings include:

- → Purging and Inerting
- → Accelerated Cooldown
- → Inert Entry Support
- → Hot Nitrogen
- → Backup Hydrogen Supply
- *→ SANDJET*TM Cleaning
- → Product Displacement
- → Tool Propellant
- → Drying and Purging

- → Blanketing
- → Pneumatic Pressure Testing
- → *Tracer Tight*® Leak Location
- → SeeperTrace® Leak Location
- → *HeliTec*® Leak Detection
- → Specialty Services
- → Temporary Gas Supply
- → Dry Ice Blasting

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