

A photograph of an industrial facility, likely a gas processing plant. In the foreground, a red valve is attached to a white pipe. A pressure gauge is mounted on the valve. In the background, there are yellow pipes, a large white storage tank with a red maple leaf logo, and a hilly landscape under a cloudy sky.

# **Integrity Surveillance Services**

**SOLID**  
Petroserve 

# SURFACE INTEGRITY SURVEILLANCE APPLICATIONS

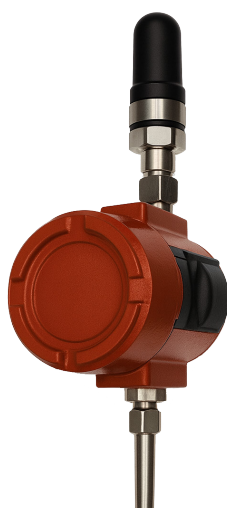


## Solid **tetrascan** Wireless Surface Gauge System

Solid offers specialized equipment and services for reducing risk of incurring lost production and associated environmental damages due to fugitive gas emissions and produced fluid spills.

Solid's new **tetrascan** PSG system represents the latest evolution in wireless programmable surface gauge technology. **tetrascan's** innovative data acquisition, wireless connectivity, data management, reporting and improved power management features provide an ideal, cost-effective solution for wellhead and surface facility integrity surveillance.

### Key operating features of the tetrascan wireless PSG system include:



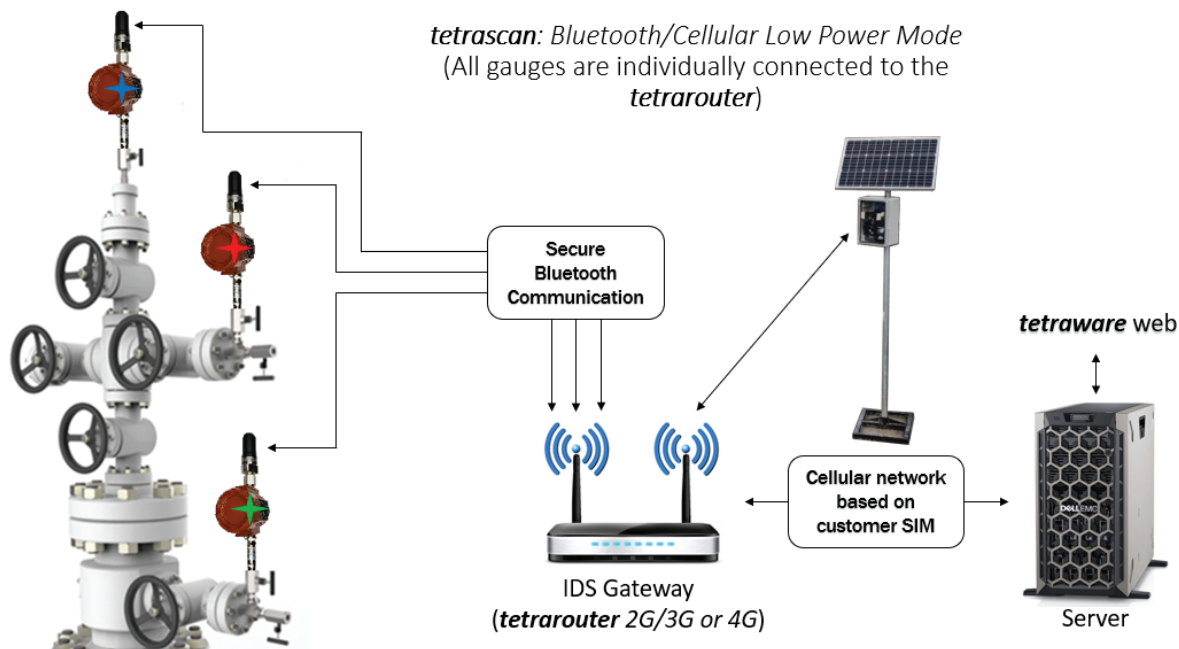
- Lower capital cost compared to conventional surface data acquisition and transmission systems.
- Gauges that can be installed and monitoring process data acquisition, transfer, and over/under alarm surveillance within minutes.
- No data acquisition system removal and reinstallation costs. Tetrascan gauges are designed for portability; removal from service and subsequent re-installation at a new site location is fast and easy to accomplish.
- A 16 million data set backup memory capacity which is by far the largest available on the market.
- The only wireless programmable surface gauge offering 3 modes of wireless connectivity; providing both real-time data acquisition and upper/lower alarm notification.

- User-friendly software that provides real-time operating data, alarm notification, worldwide cellular/WiFi communications including bidirectional remote access for gauge programming purposes at no extra cost
- Advanced energy management system that maximizes battery life.
- Lithium D-cell batteries typically last 2+ years under normal operating conditions.
- Ideal real-time integrity surveillance solution for early detection of produced gas leaks to minimize greenhouse gas emissions, and well environmental damage/property loss resulting from produced fluid spills.



## tetrascan's real-time wireless alarm are immediate...

- ✓ Fast & easy installation and setup; normally takes 10 to 15 minutes for **tetrascan** sensors to be online and acquiring data.
- ✓ **tetrascan** alarm condition response is immediate; alarm notifications are transmitted to tetraware Web online server.
- ✓ **tetrascan** provides two forms of alarm notifications:
  - end-user 24/7 access to tetraware Web real-time ongoing job data graphics.
  - Emailed alarm message updates continue to be sent until alarm condition ends.
- ✓ **tetrascan** repeat real-time alarm notifications continue according to end-user-selected life and onboard memory consumed.
- ✓ **tetrascan** systems operate autonomously; real-time updates include remaining battery life and onboard memory consumed.



## tetraware web real-time online display indicating a high-pressure alarm condition:

The display shown below is for a multi-gauge installation including 5 *tetrascan* PSG's with alarm condition alert occurring on one of the gauges (Device 3).

Individual PSG identification labels can be set by user.

Real-time online display also shows current pressure at each gauge location; as well as remaining battery power level and device memory consumed.

## Cellular Mode

### HIGH PRESSURE ALARM!

#### Device 1

15.442 psi(A)

20.89 °C

21-Jan-2019 1:00:00 PM

89%  
10%

#### Device 2

14.663 psi(A)

21.45 °C

21-Jan-2019 1:00:00 PM

90%  
11%

#### Device 3

35.432 psi(A)

22.45 °C

21-Jan-2019 1:00:00 PM

91%  
12%

#### Device 4

14.35 psi(A)

23.45 °C

21-Jan-2019 1:00:00 PM

92%  
13%

#### Device 5

14.852 psi(A)

22.63 °C

21-Jan-2019 1:00:00 PM

93%  
14%

