

# Corrosion risk and mitigation methods

## YOUR CHALLENGES

**To study the aging of coatings, the effectiveness of cathodic protection, external corrosion and integrity challenges related to natural gas and new gases (biomethane, hydrogen, CO2).**

### OUR VALUE-ADDED SKILLS

- Coatings: smart coatings, aging in underground service (cathodic detachment) or on the surface (oxidation).
- Cathodic protection efficiency: new probe tests (IR-free, ER probes, long-life electrodes), demanding standards (ISO 15589-1, 100 mV method, 100 mV method), qualification of new equipment (grounding systems, AC,... drainage systems).
- Corrosion: atmospheric (overhead storage, aboveground equipment), soil, AC and DCVG (challenges posed by the new standards: ISO 21857), induced by microbiological microbiology (test kit), or internal (impact of impurities: O<sub>2</sub>, CO<sub>2</sub>, H<sub>2</sub>S,...).
- Hydrogen: evaluation of blocking solutions (organic coatings, gaseous inhibitors, surface treatments,...) by permeation measurements.

### OUR REFERENCES

- Physico-chemical analysis of coatings
- Electrochemical studies of corrosion in soils and liquids
- Corrosion studies (electrical influences, bacteria)
- Development of equipment for measuring and controlling the effectiveness of cathodic protection
- Study of the impact of hydrogen using specific test facilities
- Design of a training course on external corrosion in the ground environment.

### PRICE OF THE SERVICE

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