



TQM
Pipeline

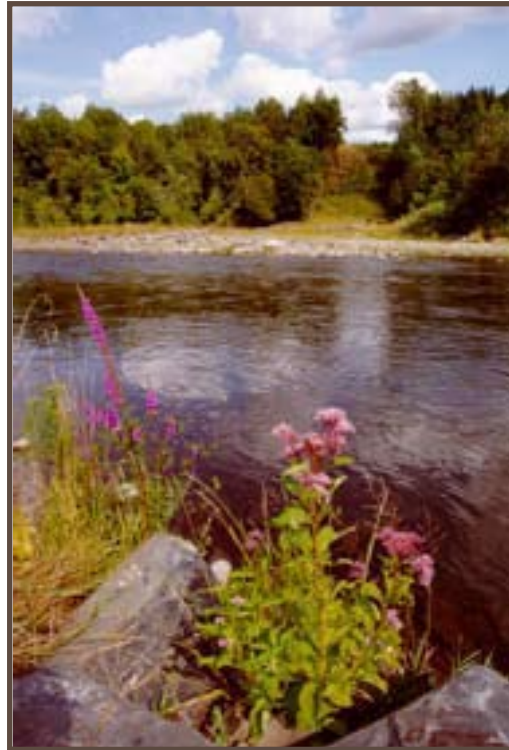
Advancing Together!

Preventive and safety measures

At TQM Pipeline, we're very concerned about the safety of your family, the public and the communities along our system. In fact, safety is one of our major concerns. Over the years our environmental practices and safety record have earned us 24 awards.

We make every effort to ensure your safety. In addition to constant monitoring and regular maintenance of our system, we have initiated a program, in cooperation with the government authorities concerned, to ensure the public is aware of and informed about the pipeline.

This document is one component of our information program. Its purpose is to familiarize you with natural gas and enable you to recognize the signs that could indicate the pipeline is not operating normally and inform us accordingly. It also contains valuable information on the resources available to you and the instructions to follow in case of an accident, to ensure your safety and that of your family.



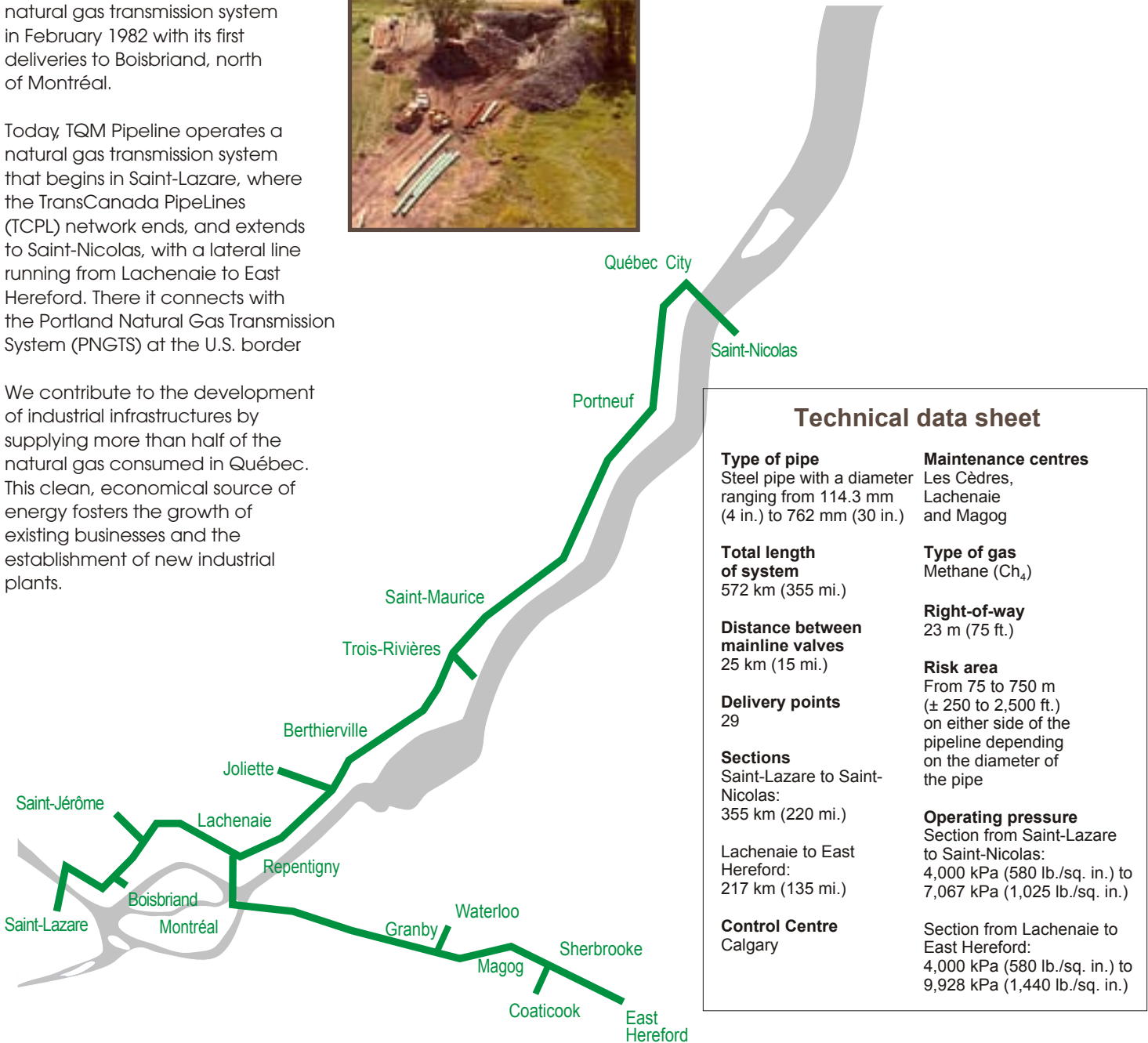
As you can see, safety is much more than a simple corporate philosophy; it's a genuine and constant commitment on the part of the TQM Pipeline team.

A natural economic ally

TQM Pipeline began the commercial operation of its natural gas transmission system in February 1982 with its first deliveries to Boisbriand, north of Montréal.

Today, TQM Pipeline operates a natural gas transmission system that begins in Saint-Lazare, where the TransCanada PipeLines (TCPL) network ends, and extends to Saint-Nicolas, with a lateral line running from Lachenaie to East Hereford. There it connects with the Portland Natural Gas Transmission System (PNGTS) at the U.S. border

We contribute to the development of industrial infrastructures by supplying more than half of the natural gas consumed in Québec. This clean, economical source of energy fosters the growth of existing businesses and the establishment of new industrial plants.



Technical data sheet

Type of pipe Steel pipe with a diameter ranging from 114.3 mm (4 in.) to 762 mm (30 in.)	Maintenance centres Les Cèdres, Lachenaie and Magog
Total length of system 572 km (355 mi.)	Type of gas Methane (CH ₄)
Distance between mainline valves 25 km (15 mi.)	Right-of-way 23 m (75 ft.)
Delivery points 29	Risk area From 75 to 750 m (± 250 to 2,500 ft.) on either side of the pipeline depending on the diameter of the pipe
Sections Saint-Lazare to Saint-Nicolas: 355 km (220 mi.) Lachenaie to East Hereford: 217 km (135 mi.)	Operating pressure Section from Saint-Lazare to Saint-Nicolas: 4,000 kPa (580 lb./sq. in.) to 7,067 kPa (1,025 lb./sq. in.) Section from Lachenaie to East Hereford: 4,000 kPa (580 lb./sq. in.) to 9,928 kPa (1,440 lb./sq. in.)
Control Centre Calgary	

Top-quality construction

It goes without saying that the transmission of natural gas demands very strict safety standards, which TQM Pipeline complies with in every respect. Designed to withstand the rigours of our climate and ground movement, the pipeline, which is invisible on the surface, was built according to the environmental practices of the government departments concerned, as well as the stipulations of the Canadian Standards Association (CSA) and the National Energy Board (NEB).

Everything has been done to ensure the system is extremely reliable. The measures taken include the following:

- Quality control of materials
- An anti-corrosion protection system
- X-rays at the factory of all pipe sections
- X-rays of welds during construction
- Testing with water under pressure (at 1½ times the maximum operating pressure)



Built to last

and inconspicuous



First-rate expertise

Our Engineering Department personnel ensure that any construction carried out respects the industry's highest quality standards.

They also apply extremely rigorous control measures in cooperation with the employees at our Maintenance Centres in the field. Together, they form a solid, highly skilled team, capable of reacting rapidly to any situation.

Experts in the transport of natural gas, all employees working on the network

maintenance enrol in continued-training programs on a regular basis to ensure they keep up with the most recent developments in technology, safety and environmental protection. In the field, they are very active and they are available at all times.

As you read this document, they may even be close to your house, since they walk the pipeline right-of-way regularly as part of our system inspection and maintenance activities. For the most part, they work out of the Maintenance Centres in Les Cèdres, Lachenaie and Magog.



A reassuring presence

The Control Centre

The Control Centre is located in Calgary.

A state-of-the-art computer system enables our personnel to perform complete and uninterrupted monitoring of the entire system.

The Centre is also in constant communication with the employees in all the regions. In this way, we can coordinate all gas transmission operations. Should a malfunction in the system be detected, employees at the Centre can immediately activate an alarm.

No matter what happens, you can count on us.

System safety

We ensure our gas transmission system operates safely through a wide range of preventive measures, including:

- Sweeping along the system with a leak detector
- Conducting aerial inspections of the system
- Checking the anti-corrosion protection system
- Performing internal inspections with electronic equipment.

These preventive measures enable us to:

- Check the condition of the pipeline and the aboveground facilities
- Check the condition of the right-of-way
- Identify any unauthorized construction activity
- Identify any defect in the wall of the pipeline.



Training programs for emergency responders

In cooperation with the various municipal emergency services, we have developed emergency measures plans for municipalities and training programs for response teams (volunteer and permanent fire departments, local police, Sûreté du Québec, ambulance services, etc.), to enable them to cope with any emergency situation.

Communications tools have been designed in cooperation with your municipality, including a guide for emergency responders and an information sheet specific to your municipality, containing information that would prove useful in the event of an accident, such as local and external resources and the location of shelters, as well as maps identifying the route of the pipeline.

By taking part in our training program, emergency responders learn how to assess any situation involving natural gas and how to handle it, from establishing a security perimeter to administering first aid. These people do their jobs well. It is important to follow their instructions to the letter at all times. They know how to protect you and your family.

How natural gas behaves

Like all energy sources, natural gas has its own unique characteristics.

Natural gas transported by TQM Pipeline is lighter than air and does not accumulate on the ground. However, a strong wind could keep it close to the ground over short distances.

Natural gas becomes inflammable when mixed with a certain concentration of air (between 5% and 15% of gas in the air). When there is very little or a great deal of natural gas, it cannot ignite.

Were the gas to catch fire after a rupture in the pipeline, the intensity of the flame would quickly subside.

Natural gas is odourless and colourless. Signs that allow us to detect a gas leak are:

- A whistling noise
- A cloud of dust
- Dead plants in an area containing healthy vegetation
- A low-intensity flame
- A slight bubbling in water

If you recognize any of these signs, leave the area and call us toll-free at:

1 888 810-8800

Working on the right-of-way? Think first!

The pipeline is dependable and very safe. It presents no risk as long as it is not damaged. Still, excavation or drilling carried out on the pipeline right-of-way without our permission or our supervision presents the greatest risk of accident. The machinery used for such work can perforate the pipeline or damage the coating that protects it from corrosion.

Although accidents involving the gas transmission system are rare, they can have serious consequences, such as injuries and loss of life, as well as property damage.

For that reason, we have a department that does nothing but handle requests to carry out work on the pipeline right-of-way. By always respecting the rules, you can ensure the safety of your family and fellow citizens.

Always call us first



Remember to contact us for:

- Any excavation or drilling on the right-of-way
- Any excavation or construction alongside or across the pipeline or the right-of-way
- Any heavy vehicle traffic that crosses the pipeline or the right-of-way

If you see any unusual activity on the pipeline right-of-way or if you plan to do any work near or directly on the right-of-way call us immediately at [1 888 810-8800](tel:18888108800).

This service is free of charge.

If the improbable occurs

As unlikely as it is, such an accident can be caused by human error or as the result of a natural disaster.

To deal with such a situation, we have developed an emergency measures plan and safety instructions in conjunction with authorities in your municipality, for the risk area applicable to your municipality.

In a worst-case scenario, should a major leak occur, the rupture of the pipeline would produce a considerable detonation. The pressure of the gas escaping as the result of a rupture could dig a crater, create a cloud of dust and project certain objects into the air.

Natural gas escaping from a pipeline produces a loud noise that makes the ground vibrate, similar to that of a jet plane.

In all cases, the block valves installed at regular intervals would automatically shut off the pipeline upstream and downstream from the rupture point, and all the residual gas would escape quickly.






Safety instructions

Follow these instructions if:

1. The gas ignites

If a rupture occurs, the combustion of natural gas creates a dangerous flame that could cause serious burns if you are in the risk area.



What to do if the gas ignites

- A)   If you are exposed to the effects of thermal radiation (heat), leave the area quickly in a car or on foot *or* take refuge behind a wall or in a building.
- B)   If you are protected from thermal radiation (heat) by a shelter of some kind, stay there. If the heat becomes too intense, leave the shelter immediately, protecting yourself with wet cloths or thick blankets.
- C)  As soon as you and your family are safe outside the risk area, call **911** or the local *emergency response team* and follow their instructions.






2. The gas dissipates into the air

If there is no flame, the gas dissipates into the air, but nevertheless presents a serious danger, because of the continued risk of flammability.

What to do if the gas dissipates into the air

- A)  Leave the area immediately, *on foot*, and ensure you are more than 750 m (\pm ½ mi.) from the scene of the accident.
- B)  As soon as you and your family are safe outside the risk area, call **911** or the local *emergency response team* and follow their instructions.

What you absolutely must not do if the gas dissipates into the air

- A)   You must not, for any reason, use any vehicle or electrical device (car, telephone cellular phone, pager, light, etc.) within the risk zone, as turning them on or off can create a spark that could ignite the gas.
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- B)   Do not smoke or use any source of heat, since any heat, even the smallest amount from a match, can ignite the gas.

With TQM Pipeline, you're in good hands

Since the founding of TQM Pipeline, safety has always been a top priority. That's why we make every effort to ensure your safety by reducing the risk of accidents related to the operation of our system to the greatest degree possible.

Construction of a safe pipeline, as well as its upkeep through a maintenance and control program, is part of our commitment. The main components of our program are:

- Quality control of construction materials
- Testing of the pipeline with water under pressure
- Round-the-clock monitoring of the system 365 days of the year
- Aerial and ground inspection of the system
- Internal inspection of the pipeline
- Public awareness and information program
- Training program for local emergency responders
- Development and communication of the emergency measures plan to municipalities

As you can see, at TQM Pipeline, safety is much more than a simple corporate philosophy. It's a genuine and constant commitment.

Don't hesitate to call us toll-free at any time to request information, to report an unusual situation or to make a request before beginning work on the right-of-way. You can reach us at [1 888 810-8800](tel:18888108800).

In case of emergency, call [911](tel:911) or the [emergency response team](#) in your municipality.



*You can really
count on us*

6300 Auteuil Avenue, suite 525, Brossard, Québec J4Z 3P2
Web site: www.gazoductqm.com