



Strength to Deliver

Environment

Petro-Canada

The way we conduct our activities is consistent with sound environmental management and conservation practices, and we strive to reduce the environmental impact of our operations while continuing to be competitive.

Tom Wiebe, environmental advisor, regularly samples water at the Fort Hills site.

Petro-Canada is a fully integrated oil and gas company, with operations ranging from oil and gas exploration and production through to refining and specialty products production, and service stations and car washes. With this wide range of functions and services, understanding the interaction between our operations and the environment – and integrating environmental stewardship into our work – is a key focus.

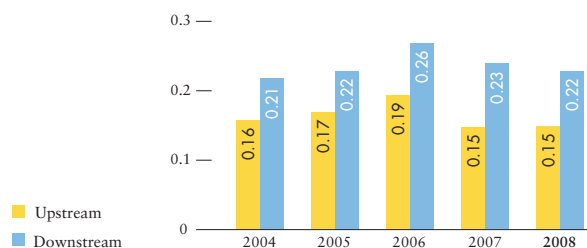
We integrate sound environmental management into all our projects by conducting impact assessments to identify key issues and mandate mitigation plans. Our TLM standards guide a systematic approach to managing environmental risks through development, operations and de-commissioning. We also perform Life-Cycle Value Assessments to integrate and balance environmental, social and economic aspects, thereby supporting holistic decision-making for our projects.

We are also well on our way to implementing a comprehensive environmental information management system (EIMS). In 2008, we launched an air module as part of this system, and are leveraging it for current emissions reporting of both air pollutants and greenhouse gas (GHG) emissions. In 2009, our EIMS focus will be on designing and implementing the water module in support of our Petro-Canada Water Principles, which were developed in 2007.

Our Principles for Responsible Investment and Operations also provide an overarching guide for our approach to the environment. Among other things, these principles demand that we conduct activities in a way that is consistent with sound environmental management and conservation practices, and strive to reduce the environmental impact of our operations.

Production Carbon Intensity (PCI)

(CO₂e per m³ of oil equivalent)



PCI is a measure of the amount of GHGs emitted (usually in tonnes) or CO₂e per unit of production. This measure is consistent with the intensity targets being proposed in Canadian legislation, and currently in force in Alberta legislation. Petro-Canada reports the unit of production in cubic metres of oil equivalent or an equally appropriate measure of production, and includes indirect emissions, which are those emissions that can be attributed to the production of power that is purchased from a third party, typically electrical power.

We recognize that as a growing company, we face environmental challenges, but we believe our people and management systems position us well to deliver on our commitment to reduce our environmental footprint, as much as reasonably practicable. The challenge is to minimize our impact on the environment while also ensuring that we contribute to meeting global energy demand, and remain competitive.

WATER

Access to fresh water and the responsible management and disposal of water used or produced in our operations affects Petro-Canada globally. That's why we developed a set of formalized, corporate-wide Water Principles that enable us to appropriately manage our water footprint.

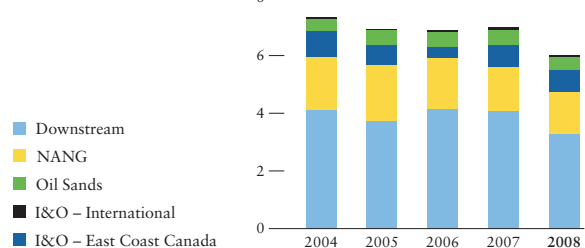
Further, our businesses have a strong track record in adopting innovative approaches to the design and operation of our facilities in order to optimize water use and waste water discharge through recycling and treatment technologies.

In 2009, Petro-Canada will pursue the second phase of our EIMS, focusing on water stewardship, management and metrics. We anticipate enhanced collection, management and stewardship of water-related information across our businesses. This, together with our Water Principles, will continue to improve the management of our water footprint as well as operational practices.

We are also committed to partnering with all who share this resource, with the goal of effective water management. A key part of our success is a collaborative approach to water solutions. We engage with the local community and other industries to promote responsible watershed management and look for opportunities to

Total GHG Emissions

(kilotonnes CO₂e)



participate in local community initiatives related to clean water and sanitation.

With an investment of nearly \$2 million, Petro-Canada launched three new water partnerships in 2009, created jointly with Canadian Parks and Wilderness Society (CPAWS), the Centre for Affordable Water and Sanitation Technology (CAWST) and the Alberta Ecotrust Foundation. These programs have been developed for people of various ages who can make a positive difference toward healthy water ecosystems for the future.

CLIMATE CHANGE

Climate change is an issue of serious concern to the general public. Tackling it responsibly requires integrated solutions that find a balance between the environment, the economy and the continued demand for energy.

In developing energy resources and providing world class petroleum products, Petro-Canada emits GHGs primarily through fuel combustion at our production facilities. So for us, reducing GHG emissions starts by becoming more energy efficient.

Our total emissions decreased from 7,027 kilotonnes in 2007 to 6,048 kilotonnes in 2008. This decrease was primarily due to a corresponding decrease in production (and energy use) from facilities in North American Natural Gas, three offshore facilities and our Downstream facilities. In contrast, the MacKay River plant increased production by approximately 23%, with a corresponding 17% increase in GHG emissions.

In addition to seeking out energy efficiency solutions, we are also looking at infrastructure to capture, store and inject CO₂ safely deep within the earth. In fact, Petro-Canada participated in the Alberta Saline Aquifer Project (ASAP), an industry initiative to identify deep saline aquifers within the Western Canada Sedimentary Basin that could be used in a carbon sequestration pilot project. We are evaluating whether to participate in

Phase II of this project, which consists of construction and operation of a demonstration pilot.

Petro-Canada also participated in Alberta's first carbon offsets auction in January 2008, and continued to successfully participate in the Alberta offsets market throughout the year.

Carbon is considered in all our business decisions – we continue to incorporate the cost of carbon into our economic models for project and business unit plans.

At Petro-Canada, we believe harmonized regulations, effective dialogue between government and industry, as well as investment in new technology, will be the keys to a viable, long-term solution to address climate change.

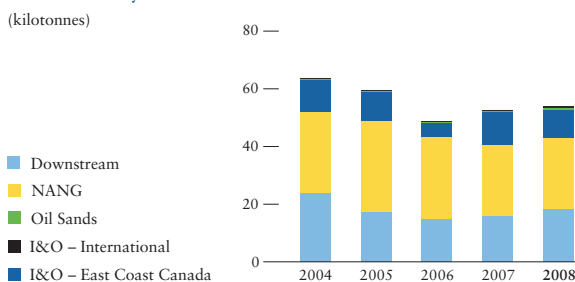
AIR QUALITY

Petro-Canada strives to ensure its facilities meet stringent air quality and emissions regulations, and implements best practice industry standards. We continue to apply emissions reduction strategies and adhere to established codes of practice.

Petro-Canada reports the quantity of releases of identified substances to local, provincial/state and national governments. We refer to these as primary air pollutants (PAPs) and they include total VOCs, CO, NO_x, SO₂ and Total Particulate Matter (TPM) under 100 µm. The numbers in this report represent total emissions for Petro-Canada operations and not just those amounts that are reportable under regulatory requirements. As such, the numbers here may not coincide with the total of all our reportable emissions.

While the releases of these pollutants are reported for air, land and water, approximately 95% of our pollutant releases are those made into the air. In 2008, the total volume of the five PAP emissions was 54.0 kilotonnes, compared with a total volume of 52.7 kilotonnes in 2007. The net increase in PAP emissions can be attributed to significant startup activities at the Edmonton

Total Primary Air Pollutant Emissions

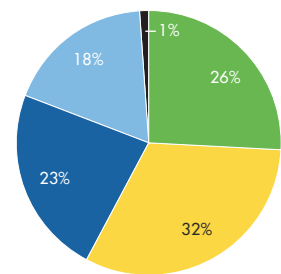


2008 Primary Air Pollutants:

Emissions by Type

(does not include TPM or CO emissions from International – non-Canadian operations)

- SO₂
- NO_x
- VOCs
- CO
- TPM



refinery following the completion of the Edmonton refinery conversion project during 2008 and a general increase in the sulphur content of the crude feedstock at the Edmonton refinery.

SPILLS

Petro-Canada works diligently to foster a culture where nothing unintentionally hits the ground or water. This philosophy is applied to all spills.

At Petro-Canada, there are systems in place to inspect and audit equipment and facilities that are used to transport and store oil and other products. We have emergency response plans at all our locations, including upstream onshore and offshore facilities, downstream refineries, distribution terminals and the network of service stations. As well as being a member of mandatory response groups, Petro-Canada is also a member of the international organization Oil Spill Response Limited, and part owner of Eastern Canada Response Corporation. This, coupled with our own response capability, helps Petro-Canada be prepared in the event of an oil spill.

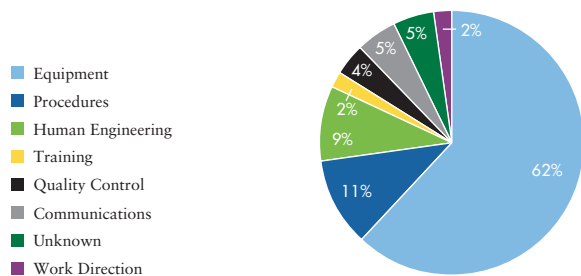
We have a strong culture of reporting loss events; however, growth and the increasing complexity of our operations mean that we must continue to improve reporting practices, strengthen mitigation efforts and minimize the number and volume of spills.

In 2008, spills exceeding 1m³ totalled 101, compared with 105 in 2007.

ENVIRONMENTAL IMPACT ASSESSMENTS

We do Environmental Impact Assessments (EIAs) on all our major projects and as required by legislation. The process helps us to understand the potential environmental risks and to design plans to reduce those risks. When an EIA is completed, we translate the requirements into ongoing plans, such as environmental or waste management plans. These plans are in place for the life cycle of a project or facility.

Petro-Canada Spills by Cause (2008)



In 2008, Petro-Canada conducted a number of EIAs as part of our international exploration and development projects. EIAs were carried out and completed for the seismic data acquisition projects at our concessions in Morocco, Syria and Libya. There was also an EIA carried out during 2008 for the development of the onshore gas plant as part of the Ebla gas project in Syria.

ENVIRONMENTAL EXCEEDANCES

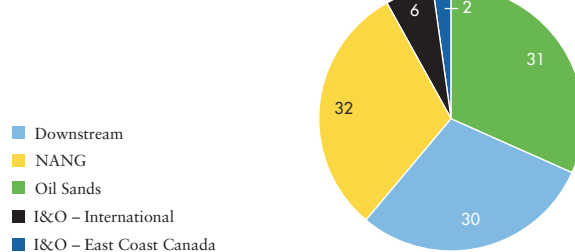
Petro-Canada carefully tracks operational upsets that may lead to environmental licence or permit exceedances. In 2008, we had 43 environmental exceedances, a significant increase from the 21¹ exceedances in 2007.

In 2008, our International & Offshore business recorded two exceedances, up from zero in 2007. Oil Sands exceedances increased from six to 20, primarily due to elevated solids (i.e. sand and clays) at the Fort Hills project and water licence exceedances at the MacKay River facility. In our North American Natural Gas business, exceedances increased to eight, up from three in 2007. This increase was due to a process upset at one of the Company's natural gas processing facilities. Downstream recorded 13 exceedances in 2008 (up from 12 in 2007), primarily due to commissioning of the new Edmonton refinery processing facilities. Following the increase in exceedances, senior management has strongly conveyed that Petro-Canada must do better. The Company has placed high priority on returning to a point where the number of exceedances decreases each year, with particular emphasis on minimizing exceedances during unusual operations.

When we become aware that an event has occurred, we immediately report the incident to the proper government agency and actively seek to remedy the situation and implement actions to prevent further occurrences. There were no environmental convictions in 2008.

¹ 2007 environmental exceedances have been restated in the 2008-2009 Report to the Community. This change is due to improvements made in our reporting methodology (and more specifically, due to improvements in the Company's electronic reporting system).

Petro-Canada Spills of Greater than 1m³ by Business (2008)



More information on Environment is available on our website under:

- Total Loss Management (TLM)
- Climate Change
- Air Emissions
- Water, including our Water Principles
- Ecosystems
- Waste Management
- Reclamation and Remediation
- Environmentally Responsible Products
- Performance Data
- Regional Priorities and Case Studies