

May 2008
Burnaby Edition

energy pathways



Burnaby Terminal Vapour Recovery System Upgrade

When petroleum products arrive at Kinder Morgan Canada's Burnaby Terminal after their journey through the pipeline, they are held in tanks at the facility before being sent to their next destination. Moving products into and out of tanks can cause odours as petroleum products interface with air and dissipate. Although not hazardous to our neighbours, these odours can be a nuisance.

To reduce the inconvenience to our neighbours, in the 1980s we installed vapour recovery systems on some of the Burnaby Terminal tanks. Vapour recovery systems pipe air from inside a domed tank through a chemical medium to remove hydrogen sulfide and mercaptan odours before releasing it outside.

Although our current vapour recovery system was considered



◀ Vapour Recovery Equipment Building

standard for the industry when it was installed, improvements in technology mean that there are now more reliable, easier to maintain, and more environmentally friendly options. For this reason, we are in the process of completing a \$150,000 upgrade to our system.

Previously, air was pumped through a wet caustic soda medium which had several disadvantages. Caustic soda must be processed before disposal and contributes to corrosion of the piping which increases maintenance.

The new two-step system first pumps air through a dry granular pellet medium called 'sulfate'. The result is a stable product that does not need further treatment before disposal. The air is then pumped through a charcoal layer to remove mercaptans before being vented outside. Less maintenance improves reliability of odour control.

The upgrade will be complete by early summer and although we expect improved odour control, residents are encouraged to continue to report odours to 1(888)876-6711. Each report is investigated

Hydrogen sulfide (H₂S) often naturally occurs in petroleum products. It is a toxic, colourless and flammable gas responsible for the odour of rotten eggs. In high concentrations it can be hazardous to employee safety.

Mercaptans are a harmless, but 'stinky' chemical that are often naturally occurring in crude oils. These are the same family of chemicals that are added to odourless gases like natural gas and propane to make them easier to detect in the event of a leak.

thoroughly and follow up actions are documented. All reports are submitted to Metro Vancouver who monitors air quality at Burnaby Terminal.

This document contains important information. Please have someone translate it for you.

這份文件包含重要資料，請找人為您翻譯。

此文件包含重要信息，希望請人幫您翻譯。

Our People

Meet Bruce Jamer, Kinder Morgan Canada's Director of Western Operations



Bruce Jamer, Director of Western Operations, Burnaby

What is your role with Kinder Morgan Canada?

I am responsible for making sure Kinder Morgan Canada's western region pipeline and pump stations operate safely and efficiently. The western region is defined as Albreda (near Valemount, B.C.) to Burnaby, and Sumas (Abbotsford) south to Anacortes, Washington.

What is a typical day like for you?

My job is interesting because every day is different! These days I am spending much of my time building our new 'District' operating model. We believe in continuous improvement, and this new model is based on successes in other areas, and has consistently shown a high level of safety and reliability - which are two factors we believe critical to our future success.

Tell us about your first job.

While studying geology in University, I spent a summer as an

underground miner. I was part of a crew mining for molybdenum. We were responsible for drilling and blasting rock that would be later processed to make steel alloys, lubricants, light bulbs and tv tubes!

What are your hobbies outside work?

My family and I enjoy sailing, and I serve on the Executive of our local sailing club. I also enjoy cycling, and regularly cycle to work to do my part for the environment.

What is the most rewarding part of your job?

I am excited to be helping to create a sustainable organization that will take us into the future, continuing to deliver our product safely and efficiently.

As an organization, we are trying to get better all the time by continuous learning and improvement.

? Did you know: What's in the Pipeline?

- Kinder Morgan Canada's Trans Mountain pipeline is the only direct link capable of transporting crude oil and refined petroleum products from Edmonton to the west coast of North America.
- The 1,150 km Trans Mountain pipeline is unique as one of only a few multi-product pipelines in the world that 'batch' a diverse range of products such as gasoline and heavy crude oil.
- Products are batched in order of density to minimize mixing the products. Multi-product pipelines make efficient use of the pipeline, and mean fewer pipelines because one pipeline can transport a variety of products.
- The pipeline operates like a railway, we receive products from customers at Edmonton where they are held in tanks before being injected into the pipeline. The products travel through the pipeline to Kamloops, Washington State via Abbotsford, or Burnaby.
- Currently, about 40% of the product shipped is crude oil destined for refineries in Washington State, about 40% is destined for Kamloops and Burnaby for use in B.C., and the remainder is loaded onto vessels at Westridge dock, destined for the westcoast of North America or Asia.
- Products travel approximately 5 km an hour through the pipeline, about the speed of an average walking pace.

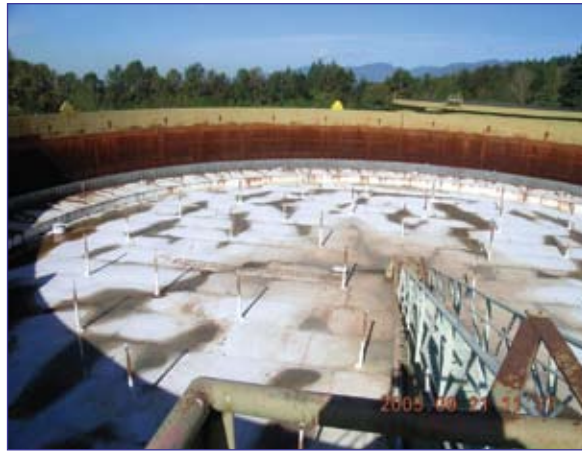


Trans Mountain Pipeline Route

Burmound Project Status

In February 2007, you may have received a notification that a Kinder Morgan Canada affiliate was making arrangements to refurbish and use three tanks for storage at Shell's Burmound Terminal located across from our Burnaby Terminal on Shellmont Street.

This project is now on hold indefinitely as we were unable to reach a final agreement with our customers regarding the project. Because of our role as a transporter of petroleum products, we are subject to the



needs of our customers for whom we ship products in the pipeline.

Should this project be considered again in the future, we will provide advance notice to our neighbours and those interested in our business.

◀ Inside the tank

Westridge Release

At approximately 12:30pm on July 24, 2007, a contractor working for the City of Burnaby struck Kinder Morgan Canada's pipeline near our Westridge Terminal in Burnaby. The pipeline was shut down in 21 minutes and Kinder Morgan initiated a comprehensive emergency response in collaboration with the City of Burnaby, Focus Wildlife, Burrard Clean and provincial and federal government agencies.

Clean up, remediation and restoration is largely complete, environmental monitoring and an investigation into the matter is ongoing.

Marine area

Intensive shoreline clean up has been completed. A multi-agency assessment team has completed periodic shoreline inspections and addresses any changes in conditions as required. Algae regrowth, a positive indicator of general marine environment health, has been observed during inspections; and the team has recommended that no further clean up work is required on approximately 99% of initially impacted shoreline areas.

Residential area

Limited residential restoration continues, and all but two families displaced during the incident have returned to their homes. Restoration of public property is also nearing completion. Monitoring of the impacted area will continue.

Thank you to the residents affected by this difficult situation. Kinder Morgan Canada has appreciated your cooperation as we work as quickly as possible to complete restoration work.

System Update - What's New?

We have made some changes along our Trans Mountain pipeline and want you to know about them!

Trans Mountain Pump Station Expansion

In April 2007, Kinder Morgan Canada completed the first major project along the Trans Mountain pipeline since the mid-1990s, when it began operating ten new pump stations on the pipeline. An eleventh pump station was added at Blue River after hydraulic tests confirmed its need. By improving efficiency of the line and with no new pipe added, delivery capability increased by about 15%, from 225,000 barrels per day to 260,000 barrels per day.

Anchor Loop Project

Under construction, and expected to be completed in late 2008, the Anchor Loop project will loop 158 km of pipeline between Hinton, Alberta and Jackman (west of Mount Robson Provincial Park), B.C., and will further increase capacity to about 300,000 barrels per day, helping to better meet our customers' needs for improved access to the west coast.



Puget Sound Projects

The Ferndale Metering Station and Laurel Pump Station Reactivation projects, both slated for completion in 2008 will increase flexibility and storage capacity on Kinder Morgan's Puget Sound crude oil pipeline in Washington State. These upgrades will provide greater flexibility in shipping crude oil destined for area refineries.

Future Expansion Plans

Any future expansion to Kinder Morgan's Trans Mountain pipeline system would be developed subject to customers needs and with a comprehensive public consultation process.

◀ Anchor Loop Construction, Jasper



Community Corner

Pacific Parklands

We are proud of our relationship with Pacific Parklands; and have contributed to several projects spear-headed by this group including installation of the Piper Spit Boardwalk at Burnaby Lake and the upcoming bird viewing tower replacement at Burnaby Lake.

Photo above: Representatives from partner organizations gather to plant hedgerow shrubs to enhance wildlife habitat at Colony Farms

Wildlife Rescue Association

We are pleased to support Wildlife Rescue Association, the largest urban rehabilitator of wildlife in B.C. Wildlife Rescue provided trained individuals to assist with stabilizing and rehabilitating wildlife during the Westridge release.



Kinder Morgan's recent donation will help to support the care and treatment of injured, orphaned and pollution damaged wildlife.

Stoney Creek Planting/ Cleanup

We have been a long time partner with the Stoney Creek Environment Committee. Last year, we participated in an effort to remove shopping carts and other debris from Stoney Creek. We also helped plan and participate in two streamside planting events.

We enjoyed helping the community celebrate the salmon as they began the journey of their lifetime at the annual Great Salmon Send Off – May 10, 2008.

Photo above: By completing stream side planting, students from Stoney Creek Community School are creating shade for salmon and habitat for small animals along the creek.

Important Spring Safety Message



A reminder that as you begin planning those spring

outdoor landscaping and building projects, always contact **BC One Call** before you dig to ensure your safety and the safety of those around you. It's easy and it's free!

1(800) 474-6886

Contact Us

We would like to hear from you! If you have a story idea, comments or questions about our publication, please contact:

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