



# Extracting Success:

## Petro-Canada and Copper Mountain Mine Partnership

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“Opening a mine is a huge undertaking, which is why new mines don’t open every day. So when they do, it’s important to choose the right people to work with. We believe we have a great business relationship with Petro-Canada.”





## Copper Mountain Mine, Princeton, British Columbia

Starting up a mine of this magnitude is a big endeavor. It takes a lot of time and effort to prepare any business for operation – especially one that involves a fifteen month period of major construction. Years of planning, hard work and strategic partnerships with suppliers like Petro-Canada Lubricants, has helped successfully launch Copper Mountain, Canada's newest copper producer.

### The Copper Mountain Mine

The Copper Mountain Mine commenced production in the summer of 2011 and is Canada's newest major copper producer. Located near Princeton, British Columbia, the 18,000 acre site has a resource of approximately five billion pounds of copper. Their mill is designed to allow a throughput of 35,000 tonnes per day (TPD), that is targeted to produce 100 million pounds of copper per year, plus gold and silver credits.

Mined as far back as the 1920s, the rejuvenation of the site represents a fresh start for the mine and the surrounding communities. Copper Mountain purchased over \$100 million worth of new mining equipment consisting of thirteen 240 and five 260 ton haul trucks, three hydraulic shovels, the world's largest mechanical loader as well as a number of other support machines including drills, bulldozers and cranes, which implies a tremendous amount of attention must go into all aspects of operations, especially the lubricant considerations for each and every machine.

*"The mine is a big deal for the province, as we haven't had a mine opening since the 1990s," explains Tom Blake, Mine Maintenance Superintendent.*

### Preparing for the Long Haul

As a past producer, the mine came with several bonuses, mainly existing facilities, including an administration building, a fresh water pumping facility from the Similkameen River, an existing tailings management facility and a power line connected to the BC Hydro grid. However, the task at hand was to build a new mine on an old deposit, an undertaking that required an investment of \$438 million which included a new concentrator building with new modern milling and processing equipment, a new five bay truck shop, new primary crusher and the new mobile mining fleet.

"We commenced pre-production mining early, built roads, dams, shops and plants, and literally built the business from the ground up," explains Blake.

From drilling to production in an impressive 4 ½ years, an ambitious and aggressive target timeline was successfully achieved. The first filtered concentrate was produced in the summer of 2011 and since then the company has maintained regular monthly shipments of concentrate to the smelters in Japan.

### Choosing the Right Lubricant Supplier

Recognizing the importance in choosing the right lubricant supplier to help prepare and run their equipment operations, Copper Mountain sent out for proposals from some of the leading suppliers in the industry.

Copper Mountain presented unique challenges to potential lubricant suppliers:

- Processing 35,000 TPD through the mill and mining 160,000 tonnes of rock a day in the mine
- Rough, muddy and extreme weather conditions, variety of equipment, makes, models and Original Equipment Manufacturers (OEMs) in use, with many different lubricant requirements to consider – such as Komatsu, CAT, Atlas Copco, etc.
- The need to have all of their operations running smoothly and properly, and all on one lubricant supplier

Though many well-known lubricant suppliers came forward with proposals, Petro-Canada Lubricants was the only one that surpassed the competition with their experience, expertise and proven products.



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“No matter the presentation, the one thing that mattered most was that suppliers actually did what they said they would do – that’s what’s really important,” comments Blake.

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### What Sets Petro-Canada Apart

Petro-Canada became an integral part of the preparation process. They were involved in designing the lube systems and lube islands, implementing procedures, and selecting the products that would provide the best results.

For Copper Mountain, the real challenge was to get the right oils and greases for their different types of equipment. Many of their machines inside the mill consist of different manufacturer parts and aligning with OEM warranty guidelines is critical across all of the machinery on site. This adds a layer of complexity to planning and managing the different lubricant requirements.

“If we had to use different original lubricants that OEMs demand, it would have been a constant headache. All we had to do was give the Petro-Canada support team our list of needs and wants, and they took care of getting all of the equipment approvals we needed.”

With proven experience working with OEMs like Komatsu and Caterpillar, Petro-Canada ensured that their products are suitable for all of Copper Mountain’s equipment.

“We were looking for suppliers that will not only provide superior products for our operations, but also a team that is going to do the job, do it right, and provide good support and service along the way. Right away we knew that Petro-Canada could do that for us.”

### Advanced Customer Service

Commitment, expertise and support for the project are major reasons why Copper Mountain selected Petro-Canada as a key supplier. Petro-Canada Lubricants Account Manager, John Austerberry, and Neil Buchanan of the Technical Services team, have been involved every step of the way. They have continually worked with Copper Mountain to assess needs and provide updated training, tools, education and guidance on a regular basis.



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“What really sets Petro-Canada apart is their experience in the mining industry, their understanding of our equipment, and their local support to help us while we got started, and on-going,” explains Blake.

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Copper Mountain has been consistently happy with the results of their collaborative partnership.

“John and his team have done an outstanding job preparing for our business,” explains Blake.

“They promised to have the sales and service to meet our needs, and they are definitely delivering on that promise.”

### Products that Perform

With an extensive line of proven products, Copper Mountain now turns to Petro-Canada for all of their lubricant needs. Using a wide range of products from HYDREX™ to ENDURATEX™, PEERLESS™ and PRECISION™ to name a few, Copper Mountain is beginning to experience the advanced performance, extended drain interval opportunities, and solid expertise that come with using Petro-Canada products.

One particular product that has performed beyond expectations is their line of VULTREX™ OGL (Open Gear Lubricants). VULTREX OGL greases are highly adhesive lubricants designed for open gear applications, including shovel, dragline, excavator, and drill operations. VULTREX provides excellent protection for handling in mining’s toughest conditions from severe winter cold to extreme summer heat, and from very wet to dry environments.

## The Lubricant Survey

Copper Mountain has many pieces of equipment in operation and roughly sixty people that are involved in changing the lubricants for the machines. Consistency and continuity are key when understanding the procedures. With different skill levels, experience and training, they wanted to ensure that the equipment was always properly cared for – no matter who was responsible. Together with Petro-Canada they created the Lubricant Survey.

The lubricant survey covers all machines and fluids across the entire business. Every piece of equipment, what it is, what it does, what type of oil it uses, oil capacity and proper change out methods, are all covered in this one concise document.

When employees are equipped with the document, it helps to better manage machines and change-outs, and reduces the chances of improper lubricant selection – which can prolong the life of the lubricants and the equipment.

“I’ve worked with poor mining products in the past, so I know good quality is important,” explains Blake. “We are happy with the performance of VULTREX and its ability to stay on our machines no matter the conditions.”

DURON™ is another product that is excelling at the Copper Mountain facility. DURON is the ultimate all season heavy duty engine oil. It extends drains and conserves energy through ease of start-up and lower viscous drag.

“Used in our Komatsu & CAT equipment and other applications, DURON products take the heat and cold very well and are very versatile.”

When they experience temperatures of 33-35°C in the summer and -20°C in the winter, it makes life much easier not having to switch out their fluids.



## Now and Into the Future with Petro-Canada

Copper Mountain is very pleased with their selection of Petro-Canada Lubricants as a key partner. Petro-Canada’s focus on customer service, planning and providing solutions has ensured that mine operations avoid unplanned downtime.

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Petro-Canada is constantly working with Copper Mountain to deliver on continuous improvement opportunities. This includes training, product handling and logistics initiatives such that they continue to add value to their operation.

“As we move forward we will have new people, new machines, and new processes, and it’s important to keep up the training and collaboration with Petro-Canada to ensure our operations are always running smoothly.”

## Advice when Selecting a Supplier

After their experience in planning and opening Copper Mountain, Tom’s advice for others making important lubricant decisions is simple:

“I would say the most important thing when selecting a long-term supplier for lubricants is vendor support. Be sure your supplier can provide the service and expertise you need, that you have the right product for the right application, and that they have the know-how to get it done on their own, so you can focus on the rest.”

To learn more about how Petro-Canada Lubricants can help your business visit: [lubricants.petro-canada.com](http://lubricants.petro-canada.com)  
or contact us at [lubecsr@petrocanadalsp.com](mailto:lubecsr@petrocanadalsp.com)

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