Case Study

How Latium Helped One Oil & Gas Company Streamline Operations, Enhance Safety, and Reduce Waste at their Ore Mining Operation

Abstract

For one of Canada's largest Energy and Mining Companies, Latium had to think outside the box and build a custom technology to meet their needs.

After a brief consultation, we developed a cost-effective network of sensors to help them track their inventory of High Voltage Cables to help streamline operations, increase efficiency, and reduce costs.

Keywords: High Voltage Cables, Oil & Gas, Oil Industry, Sensory Technology

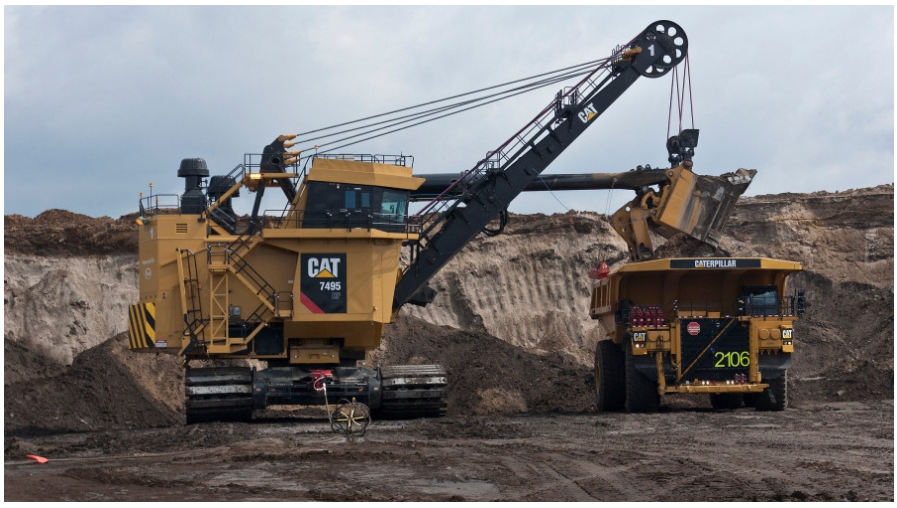
The Challenge

In the extraction of bitumen from the Oil Sands, our client uses a fleet colossal shovels powered by thousand-meter-long electric cables. Like a gigantic extension cord, these cables are moved as the asset (in this case, the shovels) travel around the mine site.

Given how valuable these cables are, it is up to a team of 2-3 engineers to track where these pieces of equipment are at all times. To date, this process has been done manually, requiring their team to fill out tracking forms by hand.

By the time this data reached their team of analysts, the cables were often moved to a different location, meaning the data-gathering process would have to start all over again.

Aside from the obvious inefficiencies in this process (not to mention the margin for human error), the job is also extremely dangerous. As the cables emit a tremendous amount of energy, the site engineers are required to wear protective gear any time they approach one, adding to the time and energy it takes to track the assets.



Our client was relying on humans to manually track cables that powered their ore mining machines.

That's where we came in.

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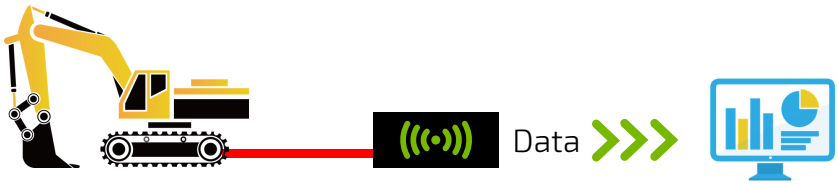
The Solution

To Latium, this presented an obvious opportunity to use our advanced sensory technology to help them reduce on-site risk for its employees AND increase productivity.

This meant developing customized sensors to track and report the data that they needed in realtime.

How it Works

The sensors are attached to the cables to gather data; pushing the relevant information to one centralized hub or "parent device".



Sensors pull information from the cable and feed it to the one centralized hub.

The Results

Using our L2X technology, they can now track in realtime:

- Where a cable is
- What condition it is in
- If it has been spliced/split
- What shovel it is connected to
- If there are inherent issues that need to be addressed

On top of the streamlining logistics, we have also contributed to their bottom line by removing the need for the teams of engineers to travel around the mine to track cables - what was a three-person job is now accomplished by a network of cost-effective sensors.

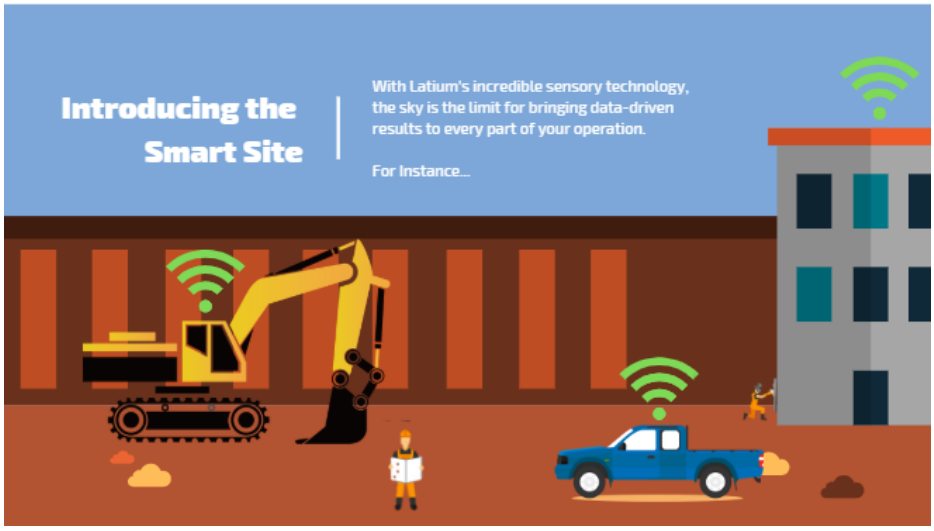
Case Study

What's Next?

For this Case Study, enhancing logistics and productivity using our sensory technology was a no-brainer – it made sense to develop a more convenient solution that automatically pulled & analyzed data rather than relying on humans to do it manually.

At Latium, we challenge ourselves to think bigger than that.

Despite how it may seem sometimes, a job site or organization isn't a puzzle comprised of multiple static pieces; no department operates 100% independently of another.



At Latium, we prefer to see them as organic entities – a veritable ecosystem that ebbs and flows, with actions and consequences rippling throughout.

For instance, why can't the technology that tracks this network of cables be used to analyze the population density of a job site, dimming lights in certain areas after measured levels of inactivity?

What's more, why can't that technology be used to measure barometric pressure and temperatures to help take proactive measures during weather events?

With our versatile sensory tech, we can allow organizations to get a clear understanding of how their job site interacts, and how it can be improved with data-driven decision making.

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