

PEOPLE, TECHNOLOGY, and PURPOSE



Written by Pauline Müller

s the driving force behind every economy in the world, the oil and gas industry may appear old-fashioned to those outside the industry. Yet, for those serving oil companies, the ability to pivot and adapt often decides their fortunes—and their futures.

Working primarily in the oil and gas sector, employee-owned GN2 Engineering (GN2) has proven over time that it has the tenacity and foresight to endure even the toughest economic downturns by giving its customers what they need when they need it, pivoting at lightning speed.

Being a medium-sized company helps in staying nimble. Based in Edmonton, Alberta, GN2 is agile and responsive when clients need it most. That has allowed the company to grow alongside its customers' expanding needs. "It is important to us to be responsive," says Noel Belland, GN2 Principal.

The company is also mindful of its customers' bottom lines. "We are constantly looking for ways to reduce costs for our client," says Belland. "We actively try to resolve issues to be efficient on cost and schedule." To this end, the company has been known to save clients as much as half their projected capital expenditure on projects valued at hundreds of millions of dollars. To achieve this, GN2 focuses on defining the problem at the onset of a project. This provides customers with all the information they need

to realistically assess and calculate the potential risks and mitigation thereof.

Focused on providing its customers with responsive, efficient service, GN2 is an engineering partner focused on providing customers with what they need. In the process, it creates a work environment where the team of more than 60—including designers, project specialists, engineers, supply chain professionals, document controllers, and others—is challenged as much as rewarded. Company leadership considers this approach paramount to its evolution as a leader in its field.

"We want people to grow. We want people to gain as wide a skillset as possible," Belland says of the importance of developing well-rounded professionals who are not forced into siloed positions. Naturally, as an employee-owned company, ensuring that staff are as diversely skilled as possible is always an asset.

By deepening their skill sets, people cultivate a deep understanding of what decisions can be made on job sites—an unavoidable part of every project. "All the decisions made on a project are a compromise between what's better [between] one perspective and another," Belland says. "When people have a broad understanding, they can help narrow down what the overall best solution is." By providing staff with the tools to succeed, the company helps develop confident professionals adept at making sound decisions under pressure.







As part of its service profile, GN2 invests in a host of advanced technologies that give it the edge it needs in the field and at the office. From 3D drone scans on pipelines and video flyovers to next-generation analysis software, the company's use of technology is impressive. Yet this team also likes doing things the old-fashioned way whenever it makes more sense. Technology alone will never beat having skilled and experienced professionals in the field.

In the same way, having in-person conversations takes priority. "[Microsoft] Teams has been an amazing lifesaver since COVID, but it's not the same as speaking face-to-face," says Belland.

This level of personalized service has always been part of GN2's culture. The company was founded on genuinely listening to clients' pain points and addressing them with unwavering dedication to engineering ideal outcomes. For the company's three founders, the slow road before them has always made for solid long-term outcomes and sustainability.

Established on humble beginnings in 2013, GN2 has always focused on engineering a range of complex tailings systems.

These systems comprise handling and treatment of industrial volumes of various types of slurry fluids that are a byproduct of mining and oil sands processing. These fluids with solids are transported long distances between production facilities, tailings ponds, and treatment facilities. The interface of pipelines and facilities on the tailings ponds is an area of GN2 expertise.

Contrary to popular belief, oil does not bubble or shoot out of the Earth like when hitting a high-pressure water vein through drilling. Instead, bitumen is contained in silica sand at ratios typically around 10 percent. Therefore, the residue following oil extraction constitutes sand, other particles, water, and extraction liquids mixed into a slurry. To recover the water component of such slurries for reuse, large tailing ponds are constructed. Here, micro-fine mineral powders that form complex matrices holding large amounts of water are separated to reclaim the water component for reuse. As part of this process, the company typically supports its customers in reconfiguring existing—or designing new—tailings systems. It also advises on reclaiming equipment to reduce capital expenditure while supplying guidance on relocating piping systems to new ponds efficiently.



Beyond its engineering expertise, GN2 has a heart as big as an oil field. GN2 supports several charities, including the Alberta Diabetes Foundation, Salvation Army, Edmonton and Fort McMurray Food Bank, and several others. Belland believes he owes the Alberta Diabetes Foundation especially a great debt. "The Alberta Diabetes Foundation saved my sister's life. There's no doubt about it," he says. The company also partners with the Canadian Blood Services Partners for Life program, leading popular blood donation drives alongside its volunteering committee.

The company's investments also extend to its workforce, with an onsite engineering curriculum affectionately known as the EIT Shakedown. This technical program provides engineers with a chance to maintain and improve their knowledge and skills while the company can assess and encourage professional growth and development.

As part of its drive to safeguard the future of local youngsters and the company, GN2 participates in student mentorship at the University of Alberta. This has resulted in a healthy stable of top-notch students joining its ranks following graduation. As the company has matured and become better established, it has made itself especially attractive as a reliable employer that offers staff job security alongside opportunities for personal and professional growth.

Beyond being of service to its communities, these initiatives also serve to welcome and integrate new team members into its ranks, giving them the sense of belonging they deserve and providing people with an opportunity to get to know each other better outside of work while still working as a team. "We spend a lot of time at work. It's our second family. Building strong relationships is important to us," Belland says.

The team also plays together, with the company arranging creative group activities like barista training and a latte art contest to teach everyone how to use its new coffee machine. There are also popsicle stick bridge-building competitions and the like, and the same level of warmth is extended to GN2's suppliers, manufacturers, partner contractors, and other collaborators. Its owners know that without these quality relationships, the company could never function as well as it does.



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Looking ahead, Belland is philosophical yet pragmatic. "If we continue to focus on outcomes for our clients... ensuring that every member of the team has success, everybody wins," he says. By cultivating future growth and developing future-proof strategies through building solid relationships, this tight-knit group of trailblazers remains on a winning streak.

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